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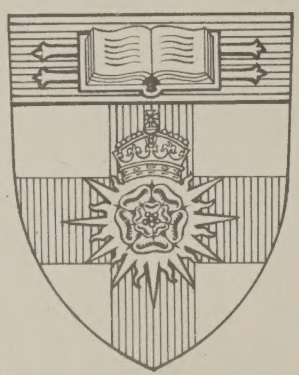

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REPORTS

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

FIFTY-ONE VOLUMES.

— (*43.*) —

REFORMATORY AND INDUSTRIAL SCHOOLS;
PUBLIC RECORDS;
SEWAGE DISPOSAL (ROYAL COMMISSION).

Session

29 *January* 1908 —— 21 *December* 1908.

VOL. LIII.

1908.

REPORTS

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

1908.

FIFTY-ONE VOLUMES:—CONTENTS OF THE

FORTY-THIRD VOLUME.

N.B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Report; *and the* Figures *at the* end of the line, *refer to the* Paging *of the Volumes arranged for The House of Commons.*

REFORMATORY AND INDUSTRIAL SCHOOLS (GREAT BRITAIN):

[Cd. 3759.] Fiftieth Report for the Year 1906 of the Inspector appointed to visit the certified Reformatory and Industrial Schools of Great Britain; Part II. General Report and Appendices, III. to XI. p. 1

[Cd. 4052.] Fifty-first Report for the Year 1907 of the Inspector appointed to visit the certified Reformatory and Industrial Schools of Great Britain; Part I. List of Schools and Detailed Reports. 195

[Cd. 4341.] Fifty-first Report for the Year 1907 of the Inspector appointed to visit the certified Reformatory and Industrial Schools of Great Britain; Part II. General Report and Appendices, III. to X. 475

REFORMATORY AND INDUSTRIAL SCHOOLS (IRELAND):

[Cd. 4272.] Forty-sixth Report of the Inspector appointed to visit the Reformatory and Industrial Schools of Ireland for the Year ended 31st December 1907. 623

PUBLIC RECORDS:

[Cd. 4062.] The Sixty-ninth Annual Report of the Deputy Keeper of the Public Records. 695

PUBLIC RECORDS (IRELAND):

[Cd. 4312.] Fortieth Report of the Deputy Keeper of the Public Records and Keeper of the State Papers in Ireland. 707

SEWAGE DISPOSAL (ROYAL COMMISSION):

[Cd. 4278.] Fifth Report of the Commissioners appointed to inquire and report what methods of Treating and Disposal of Sewage (including any liquid from any factory or manufacturing process) may properly be adopted. Report. 749

FIFTIETH REPORT

FOR THE YEAR 1906,

OF THE

INSPECTOR

APPOINTED,

UNDER THE PROVISIONS OF THE ACT 5 & 6 WILL. IV. c. 38,

TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS

OF

GREAT BRITAIN.

PART II.—General Report and Appendices III. to XI.

Presented to both Houses of Parliament by Command of His Majesty.

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FIFTIETH REPORT

OF THE

INSPECTOR

APPOINTED TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS OF GREAT BRITAIN.

PART II.—General Report and Appendices III. to XI.

To the

Right Hon. HERBERT JOHN GLADSTONE,
M.P., &c., &c.,
Secretary of State for the Home Department,

and

To the

Right Hon. JOHN SINCLAIR,
M.P., &c., &c.,
Secretary for Scotland.

Great Scotland Yard, S.W.,
August, 1907.

Sirs,

I have the honour to submit to you the second part of the fiftieth Annual Report on the Reformatory and Industrial Schools in Great Britain under inspection during the year ended December 31st, 1906. The first part, containing the list of schools under inspection and the detailed reports of inspections, was published earlier in the year. [Cd. 3438.]

General Remarks.

During the greater part of the year Mr. Legge was in charge of the Department, resigning his position on the 31st August, 1906, to the general regret of those who had the best interests of he schools at heart. My appointment dates from 1st September, 1906. During the year every school was examined at least once by Mr. Legge or one of his colleagues, including myself, and over 200 additional visits without notice were paid.

The total number of schools under inspection on the last day of the year was 211, viz., 44 reformatory schools including two ships, 133 industrial schools including seven ships, 13 truant schools, and 21 day industrial schools. In addition there were 30 certified auxiliary homes in connection with industrial schools, 24 being for boys and six for girls.

The total number of juveniles under detention in the three classes of residential schools at the close of 1906 was 25,967, namely, 21,138 boys and 4,829 girls. This shows an increase of 66 boys and 68 girls as compared with the previous year.

In addition to the above there were 3,284 children (21 fewer than at the end of 1905) attending day industrial schools and 227 children on licence from those schools.

The admissions to residential schools during the year 1906 numbered 6,765 (5,704 boys and 1,061 girls), an increase of 487 (409 boys and 78 girls) as compared with the previous year. The net increase in England was 286 and in Scotland 201.

The admissions to day industrial schools showed a net decrease of 23, viz., 1,967 (1,223 boys and 744 girls) for 1906, against 1,990 (1,316 boys and 674 girls) for 1905.

The following tables show the numbers under detention in each class of school, together with receipts and expenditure at various periods since 1859.

The amounts collected from parents are not, however, received by the managers in the case of residential schools, but paid to the Paymaster General in relief of the Treasury grant. In the case of day industrial schools the parents' contributions are collected and retained by the education authority managing the school in relief of the rates.

Reformatory Schools.

Year.	*Number under Detention.	Paid by Treasury.	Parent.	Rates.	Subscription and Legacies.	Total School Expenditure.
		£	£	£	£	£
1860	3,803	59,230	2,140	2,596	24,903	92,854
1870	6,562	84,423	3,296	19,373	8,600	123,015
1880	7,070	91,781	5,973	23,912	6,005	134,080
1890	5,854	78,863	5,489	24,056	2,793	119,337
1900	5,611	72,437	6,328	24,899	2,246	117,427
1905	5,380	72,981	7,342	30,829	3,644	128,779
1906	5,434	72,790	7,820	31,347	3,569	120,962

* These figures represent the total number of children under order of detention, and include those on licence, absconders, &c., liable at any time to return to the schools.

INDUSTRIAL SCHOOLS (including Truant Schools).

Year	*Number under Detention.	Paid by Treasury.	Parent.	Rates.	Subscription and Legacies.	Total School Expenditure.
		£	£	£	£	£
1870	8,788	92,962	4,540	21,129	59,310	188,779
1880	16,446	167,639	17,000	83,069	29,260	316,175
1890	22,735	194,404	16,657	110,135	34,490	360,947
1900	24,718	192,041	19,272	168,271	24,897	427,670
1905	20,454	179,140	21,366	186,164	33,498	440,951
1906	20,534	173,953	21,279	194,749	46,394	459,879
DAY INDUSTRIAL SCHOOLS.						
1880	1,005†	1,492	258	4,569	825‡	8,261
1890	3,698†	6,891	3,382	12,332	982‡	25,559
1900	3,253†	7,179	2,741	21,420	1,980‡	33,056
1905	3,305†	7,823	2,825	27,954	--	38,920
1906	3,284†	7,807	2,817	27,205	--	38,153

* These figures represent the total number of children under order of detention, and include those on licence, absconders, &c., liable at any time to return to the schools

† In the case of day industrial schools, the figures represent merely the number of children actually in attendance at the end of the year.

‡ Received almost entirely by one school (Kirkdale), which was under voluntary management up to 1903, when it was taken over by the Liverpool Education Authority.

The Departmental Committee, under the chairmanship of the Hon. T. H. A. E. Cochrane, M.P., appointed in May, 1905, by Mr. Secretary Akers Douglas to inquire into the financing of the English schools, published its report [Cd. 3143] in August, 1906, and certain of its recommendations, in a modified form, have since received Treasury sanction. The distinction as regards the Treasury grant between Industrial Schools (including Truant Schools) certified since 1872 and those certified before that date has been abolished, as regards England and Wales, in those cases where the local authorities are contributing adequately, *i.e.*, at least 3*s.* per week for each case sent from their districts.

An extra allowance (not to exceed £8,000 for the current year) has been granted for the benefit of such of the English Reformatory Schools as need financial assistance to secure and maintain improved efficiency, managers claiming a share of this extra grant being required to show that in future cases, at any rate, they will receive at least 2*s.* 6*d.* a week in respect of each boy and 2*s.* a week in respect of each girl from the local authorities.

The estimate for Reformatories for the year 1907–8 accordingly shows a net increase of £8,000 as regards England, while that for Scotland shows an increase of only £250.

The estimate for Industrial Schools, including Truant Schools, shows an increase of £5,000 for England and of £750 for Scotland. The estimate for Day Industrial Schools in England is £6,000 and in Scotland is £2,000. The net increase on the whole estimate, including staff and office expenses, is £13,128.

On pages 193 to 205 of the last published Judicial Statistics, Part I. [Cd. 3315], will be found tables showing for 1905 for both sets of schools, (*a*) the admissions and terms of detention ordered; (*b*) the discharges and terms of detention actually served; and (*c*) the age, sex, and state of instruction of the children admitted. Special tables also show, with regard to Reformatories, (*d*) offences and sentences, and (*e*) previous convictions of offenders admitted.

It has been customary in this Report to print a table compiled from information supplied by the Judicial Statistics showing for a series of years the numbers of children between 12 and 16 and of young persons between 16 and 21 who have been convicted of indictable offences. In the third column is shown the number of children committed to Industrial Schools in each year.

The warning to be derived from these figures would appear to be that if the number of committals to Industrial Schools continues to decline the number of young persons convicted of indictable offences will continue to rise.

NUMBER OF CHILDREN COMMITTED TO INDUSTRIAL SCHOOLS, AND OF CHILDREN AND YOUNG PERSONS CONVICTED OF INDICTABLE OFFENCES (ENGLAND).

Year	Convicted of Indictable Offences.		Number of Children committed to Industrial Schools. (3)
	Number between 12 and 16. (1)	Number between 16 and 21. (2)	
1895	5,330	8,634	3,015
1896	5,773	7,834	3,305
1897	5,625	8,063	3,331
1898	6,104	8,489	3,125
1899	5,715	7,592	2,929
1900	6,550	8,046	2,907
1901	6,185	8,468	2,947
1902	6,243	8,584	2,673
1903	6,082	8,938	2,566
1904	5,816	9,332	2,571
1905	6,042	9,443	2,489

In this, the Fiftieth Report, suggesting as it does the official jubilee of the Reformatory Department, some reference to the history of each class of schools may be permitted by way of introduction to the statistics specially relating to them.

The REFORMATORY SCHOOLS, designed for juveniles of both sexes up to 16 years of age on admission, who have committed an

offence punishable by penal servitude or imprisonment,* were the first to be recognised as entitled to substantial State assistance, and, between the passing of the Reformatory Act of 1854 and the publication in 1858 of the First Report by the Inspector specially appointed to supervise them, 40 schools were certified in England and four in Scotland. These schools were of the plainest description. Most of them, and generally the best, were farm schools established on country estates. A single room with white-washed walls and tiled floor served as school-room, meal-room, and, in wet weather, as work-room and play-room. The dormitories were unplastered and ceiled roughly under the rafters of the roof. An unpaved yard enclosed by the buildings served for exercise and a very limited amount of recreation. For washing there was an out-building or shed fitted with a stone bath and a wooden trough. Playfields were practically unknown, and no school was considered complete without one or more cells of correction of a severe type. Of the English schools 26 still survive as Reformatories, but almost without exception are improved beyond recognition. A few have been entirely rebuilt on better sites, others have been added to and partially reconstructed on modern lines. Class-rooms, play-sheds, and gymnasia now generally supplement the one living room; ranges of more up-to-date workshops add materially to the equipment; no school is considered complete without a good playfield; and where the cells have not absolutely disappeared they are found chiefly useful as store cupboards or photographic dark-rooms. Three boys' schools, the Sunderland, the Dorset, and the Buxton (Norfolk), and two girls' schools, the Yorkshire Catholic School at Sheffield and the School of Discipline, are now Industrial Schools; while 11 after more or less chequered careers have entirely disappeared. Of the English schools certified subsequently to 1857, 11 still exist, but their certificates date back at least 30 years, as since 1876 no absolutely new Reformatory has been established. All the schools in England continue to be managed by voluntary committees, no local authority having so far established a Reformatory of its own; but on the other hand, with few exceptions, the county and municipal councils have been ready enough to make such contributions towards the maintenance of children sent from their districts, as the managers have asked for, such contributions in the aggregate amounting to rather less than half the Treasury grant.

In addition to the four schools certified as Reformatories in Scotland there were in that country by the end of 1857 four others which were partly Reformatories and partly Ragged Schools, and 14 which belonged entirely to the latter class, having been sanctioned under an Act of 1854, peculiar to Scotland and known as Dunlop's Act. Of the 22 schools three

* A list of the offences for which juveniles were committed to Reformatories in 1906 will be found on page 194.

survive as Reformatories and ten as Industrial Schools. It cannot indeed be said that Reformatories ever aroused much interest in Scotland. They have always been outnumbered there to a greater extent than in England by Industrial Schools, and but for the public spirited action of the Glasgow Juvenile Delinquency Board even the few which have survived might have succumbed in the struggle for existence. Originally the Board possessed two Reformatories, but in 1886 closed the one for boys, preferring to patronise with increasing liberality the the male Reformatories under other management (chiefly the Kibble Institution at Paisley). To its girls' Reformatory the Board gave a fresh start in new buildings at East Chapelton in 1882, and has continued to manage that school with conspicuous success. The Aberdeen Town and County Councils also, by virtue of a special Act, established two Reformatories, Oldmill for boys and a small school in the town for girls, but both have been closed during the last ten years. The Dalbeth Reformatory for Roman Catholic girls, after maintaining an average of about 80 girls almost entirely on the Government grant, was in 1891, from a falling off in the supply of cases, constrained to exchange its certificate for one as an Industrial School. The Inverness Reformatory originally certified for boys and girls relinquished the latter in 1863, and finally closed in 1884. Left with so few Reformatories Scotland has of late years had great difficulty in finding accommodation for juvenile offenders dealt with under the Act, and the managers of the surviving schools have been able to require a local authority to contribute at least 2*s.* a week in respect of each case sent from its district, and to still keep their schools full.

Taking the two countries together, high-water mark may be said to have been reached in 1880, when the schools numbered 64 (52 in England and 12 in Scotland), the number of juveniles under detention exceeded 7,000, and the Treasury grant for the year amounted to nearly £92,000. During the succeeding decade there was a gradual decline, but since 1890 there has been merely a slight ebb and flow. A few more schools have closed during the last 16 years, but on the other hand several of the surviving schools have extended their accommodation, and the figures have kept fairly close to the average, viz., about 5,500 under detention, with a Treasury grant of about £73,000.

The increase in all-round efficiency has been continuous from the first and during the last decade has been specially pronounced. The abolition of the preliminary term of imprisonment by the Act of 1899 gave the young offenders and the schools a more complete chance than ever before ; the development of industrial training on lines more suggestive of instruction than of financial profit ; the cultivation of a public school spirit, aided by the institution of organised games, carefully devised systems of physical exercises, including free and applied gymnastics ; and more rational treatment, coupled with a greater amount of

judicious trust and confidence in young human nature, have succeeded in a remarkable degree in stifling evil tendencies by cultivating the good, and proved to all who are familiar with the schools and their work that amongst the erstwhile juvenile offenders is to be found some of the most promising material in the country. Adverse critics of the schools are indeed rarely to be encountered except amongst those whose information, if ever acquired at first hand, is at least 15 or 20 years old and even then is too often confined to the few failures without any regard to the many successes. Every year during the last half century detailed reports of the schools accompanied by statistics of all kinds bearing on their operations and results have been published; visitors are always welcomed and need no special permit; with regard to no other class of school are such facilities afforded for those who will to form an opinion, and yet the possession of information on which an unbiassed opinion can be based is confined to the few, while the general public have but the vaguest notion of what the schools are or as to what they are doing.

That there is still room for improvement, much in some, a little in others, the warmest admirers of the schools are quite ready to admit. They are human institutions and have an uphill task. They too often encounter discouragement in quarters where they have a right to expect sympathy and support; they will probably be always judged, as no other institutions in the world are judged, by their failures rather than by their successes, but despite all, this at least can be said of the schools as a whole, that their management has been economical and their results increasingly satisfactory.

The number of Reformatory Schools at the end of 1906 was 44, viz., 37 in England and 7 in Scotland, with juveniles under detention as in the following table :—

	Boys.		Girls.	
	Number of Schools.	Under Detention.	Number of Schools.	Under Detention.
England—Protestant	24	3,362	7	341
Roman Catholic ...	4	781	2	145
Scotland—Protestant	4	465	2	99
Roman Catholic ...	1	241	—	—
Total	33	4,849	11	585
Including—On licence	—	753	—	19
In prison	—	1	—	—
Absconded	—	47	—	2
Total	—	801	—	21
And actually in the schools...	—	4,048	—	564

The number of boys actually in the schools at the end of the previous year was 3 less, whilst that of the girls was exactly the same, viz., 564.

The ADMISSIONS to Reformatory Schools in 1906 were 1,468, viz., 1,297 boys and 171 girls, showing an increase of 21 boys and 35 girls as compared with 1905. Particulars as to ages, previous convictions of the young offenders, and their distribution to English or Scottish, Protestant or Roman Catholic Schools will be found in Appendix III. (A and B), pages 48 to 53. In England 1,242 of the young offenders were dealt with summarily and 16 by Quarter Sessions or Assize Courts.

Of 1,258 admitted to English Reformatories in 1906, 27 had lost both parents, 17 had been deserted, and 35 were illegitimate as far as was known.

Inquiries and proceedings were taken in 1,248 cases, with the result that in 828 cases the parents were placed under contribution.

Of 210 admitted into Scottish Reformatories in 1906, 6 had lost both parents, 3 had been deserted, and 11 were known to be illegitimate. In 84 cases the parents had been placed under contribution.

The DISCHARGES from Reformatory Schools in 1906, deducting transfers, amounted to 1,222 boys and 185 girls; total, 1,407.

	Boys.	Girls.	Total.
To employment or service	531	129	660
Placed out through relatives	348	45	393
Emigrated	48	5	53
Sent to sea	128	—	128
Enlisted	116	—	116
Discharged from disease...	12	5	17
Discharged as incorrigible	—	—	—
Died	17	1	18
Absconded, not recovered	22	—	22
Total	1,222	185	1,407

The TOTAL ADMISSIONS to Reformatory Schools to December 31, 1906, amounted to 75,002, viz., 62,742 boys and 12,260 girls.

The TOTAL DISCHARGES to the same date, exclusive of transfers, were 69,559, viz., 57,887 boys and 11,672 girls.

The RESULTS for the years 1903, 1904, and 1905 were as follows:—

Number placed out in the three years was 3,875, viz., 3,400 boys and 475 girls.

Of these 68 had died, viz., 54 boys and 14 girls, leaving 3,346 boys and 461 girls to be reported on.

Of the boys—

2,522 or about 75 per cent. were in regular employment,
190 „ 6 „ were in casual employment,
439 „ 13 „ had been convicted,
195 „ 6 „ were unknown.

Of the girls—

349 or about 76 per cent. were in regular employment,
50 „ 11 „ were in casual employment,
14 „ 3 „ had been convicted,
48 „ 10 „ were unknown,

giving an approximate percentage in fuller detail as below* :—

—	In regular employment.	In casual employment.	Convicted.	Unknown.
ENGLISH SCHOOLS :				
Protestant ... ... Boys	77	6	12	5
„ ... ... Girls	74	8	4	14
Roman Catholic ... ... Boys	72	7	11	10
„ ... ... Girls	84	11	2	3
SCOTCH SCHOOLS :				
Protestant ... ... Boys	79	4	16	1
„ ... ... Girls	67	21	1	11
Roman Catholic ... ... Boys	59	5	30	6
„ ... ... Girls	—	—	—	—

The Returns received from the schools, and on which the above figures are based, are carefully scrutinised, and amongst other checks on their accuracy, independent reports are received from the various prisons as to offenders who are recognised as having previously been in Reformatory Schools.

The number so identified in 1906 was 902 (73 less than in 1905); 611 (598 males, 13 females) in English and Welsh prisons, and 291 (283 males and 8 females) in Scottish prisons.

The JUDICIAL STATISTICS have from time to time supplied the figures given in the following table.

* For further detail on the subject of these tables, and the disposal of ex-inmates of the schools, reference may be made to the section of this Report dealing with the question of disposal. (*See* page 36, and Appendix III. (D), pages 56 to 73.)

TABLE showing NUMBER of ADULT and JUVENILE COMMITMENTS for certain years since 1861.

Year	England and Wales.		Scotland.	
	Adults.	Juveniles.	Adults.	Juveniles.
1861	103,343	8,801	17,366	1,212
1870	147,225	9,998	27,646	1,204
1880	160,684	5,579	49,575	1,188
1890	150,780	3,872	47,834	755
1900	144,964*	1,353*	57,013	321
1904	197,192*	1,203*	54,184	206
1905	195,123*	1,045*	54,859	282

* Convicted prisoners only.

The RECEIPTS and EXPENDITURE for Reformatory Schools were as follows :—

RECEIPTS.

	England. £	s.	d.	Scotland. £	s.	d.
Treasury allowance	61,900	7	4	10,890	0	7
Payments from County and Borough rates	26,644	16	5	4,701	17	7
Subscriptions, legacies, &c. ...	3,493	4	8	76	3	6
Payments from voluntary associations.	185	7	10	18	14	0
Sundries. Interest on Investments, &c.	1,915	15	0	517	17	7
Profit on industrial departments, including hire of labour— England ...3,016*l.* 14*s.* 6*d.* Scotland ... 486*l.* 7*s.* 10*d.*	9,827	18	7	1,364	17	0
Total ...	£103,967	9	10	17,569	10	3

EXPENDITURE.

Officers' salaries and rations ...	25,296	5	5	3,962	15	2
Food of inmates	24,221	10	2	4,230	19	11
Clothing do.	12,510	11	1	2,446	5	11
Rent of school premises and interest.	2,155	13	3	245	0	9
Disposal on discharge	4,101	12	11	476	16	1
Loss on industrial departments	448	5	8	—		
Building and Capital Account ...	5,658	3	9	1,692	15	2
Sundries, including furniture, rates, &c.	28,618	2	6	4,897	5	5
Total ...	£103,010	4	9	17,951	18	5

The AMOUNTS received from parents of juvenile offenders in Reformatory Schools for 1906 were—

	£	*s.*	*d.*
England and Wales ...	7,290	19	3
Scotland	529	0	1
Total	£7,819	19	4

Showing an increase of 478*l.* 3*s.* 7*d.* on amount collected in the previous year.

The average cost of maintenance, including rent and expenses on disposal, and allowing the usual set-off for the profits of the labour of the inmates, was—

For Boys' Reformatories in England, 22*l.* 5*s.* 1*d.*, and in Scotland, 21*l.* 12*s.* 7*d.*

For Girls' Reformatories in England, 21*l.* 12*s.* 4*d.*, and in Scotland, 22*l.* 9*s.* 0*d.**

INDUSTRIAL SCHOOLS.

The Industrial Ragged Schools of Scotland having, thanks to the Act of 1854, promised to become successful and economical preventive institutions, the Industrial Schools Acts for Scotland and England were passed in 1861, and the latter country followed the example of Scotland in having some of its Ragged Schools certified, and in both countries the schools were placed under Home Office inspection. The Industrial Schools were then, as now, to receive children under 12 who had committed a first offence punishable by imprisonment, or under 14 if found begging or otherwise in dangerous circumstances. Practically all these schools, both in England and Scotland, had a large admixture of day scholars, and many, if not most of them, received both boys and girls. The first idea of a preventive institution seems indeed to have been a day feeding school which, planted in the thick of the slums, was to fight at close quarters against parental neglect and the evil associations of which the children were the victims; not to undermine, but to improve and preserve the sense of parental responsibility; to save rather than destroy family ties. Probably there was little difference between the day scholars and the boarders save the technical one of police court proceedings which had been resorted to in the case of the latter, but which were held in suspense in the case of the former. As, however, a grant of 5*s.* a week was allowed in respect of each intern and nothing in respect of a day scholar, it is not surprising that the schools gradually became entirely residential. By the

* These amounts would appear to be from £2 to £3 less than the average cost of a child in a Poor Law School.

end of 1861 there were 23 certified Industrial Schools in England and 14 in Scotland, and ten years later 69 in England and 26 in Scotland, 15 of the English schools and 12 of the Scottish being mixed, *i.e.*, receiving both boys and girls, and the great majority of them situated in the midst of town surroundings. The schools having by this time become, with few exceptions in England and scarcely one in Scotland,* purely residential, it became clear that whatever might be the case with a day school, a residential school was at a serious disadvantage in a crowded situation, and that the mixing of the sexes under the same roof was open to serious objections. A twofold movement accordingly began which can be hardly said to have yet culminated, viz., a removal to the outskirts and the conversion of the girls' department into a separate establishment. This latter part of the movement helped to swell the number of the schools, and by the end of 1881 there were 99 certified Industrial Schools in England and 34 in Scotland, of which only 4 English schools and 6 Scottish schools were mixed. Of late years the practice has been to transfer the girls to other institutions and to re-certify the school as one for boys only, as in the cases of the Gateshead, the Chester, and the Birkenhead Industrial Schools in England, and the Paisley Industrial School in Scotland. At the present time there are only two schools with boys and girls under the same roof, viz., Newcastle Industrial School in England and the Kilmarnock School in Scotland, and as regards the former, at least, the supply of girls is steadily diminishing. The establishment of School Boards in England by the Elementary Education Act of 1870 and the further additions to their powers conferred by the Elementary Education Act of 1876, while resulting in the extinction of the old Ragged Schools which had done such excellent social work in a rough and ready way at comparatively small cost, had the effect of encouraging and stimulating the growth of residential Industrial Schools, without providing much in the nature of a compromise between the entire separation of the handicapped child from its home for a number of years and leaving it to take its chance in a system but ill adapted to its particular needs. If the School Boards in England called the tune it must be admitted they were, with few exceptions,† prepared to pay the piper. From their own rate their contributions rose from £3,000 in 1871 to over £56,000 in 1881. Some few of them, including the School Boards for London, Bristol, and Sheffield, had by 1881 established Industrial Schools of their own and created a new class of Industrial School known as Truant

* The only surviving example of the old system is the little school at Arbroath, which still has a handful of day scholars in addition to its 30 boarders.

† The exceptions were chiefly to be found in the larger towns of Northumberland and Durham, where even now a visitor is apt to consider that the state of affairs is many years behind that obtaining in the other parts of the country with which he is acquainted.

Schools.* Of the 107 English Industrial Schools existing at the close of 1891, eight were owned by School Boards, seven by County Councils, and one (Shustoke, Birmingham) by a Town Council. As a School Board would as a rule find it more expensive to contribute towards the maintenance of a child in an Industrial School than to take some trouble with it at home, there was little danger of unsuitable cases being committed to the schools. School Boards in England, moreover, were disposed to assist the central government and the police in enforcing parental responsibility, and accordingly it could scarcely be urged with justice that in England the Industrial Schools were encouraging neglect, either on the part of the parent or of the Local Authority. As regards Scotland, however, the case has been less satisfactory. By the Elementary Education (Scotland) Act of 1872 School Boards were empowered to establish and maintain certified Industrial Schools. But Scotland already had more than a sufficiency of such institutions, mostly converted Ragged Schools, subsisting mainly on the Government grant, though in some cases possessing endowments and occasionally receiving private subscriptions and windfalls in the shape of legacies. Those Ragged Schools which had remained independent disappeared, or, as in England, became absorbed in the School Board system, and soon lost the more valuable of their distinguishing features. It was not till the Day Industrial Schools (Scotland) Act of 1893 was passed that the power to contribute towards the maintenance of children sent to Industrial Schools was conferred upon School Boards and by that time too long and fatal an interval had elapsed for much regard to be paid to this belated but all important provision. From the figures printed on page 22, it will be seen that the total amount contributed by the School Boards of Scotland to Industrial Schools in 1906 was only about £700. Yet the School Boards are directly or indirectly making very free use of those schools, and they have clearly defined responsibilities towards the children they cause to be sent to them—responsibilities defined and imposed by Statute and as real as those of the parents.

To facilitate evasion of undoubted responsibility is as mischievous in one case as in the other. One result is seen in the fact that Scotland has relatively twice as many certified Industrial Schools as England and Wales, with an average of 50 more inmates per school, and could probably fill a good many more, for the unfortunate conditions which gave rise to their establishment show no signs of improvement, in spite of the School Board system having been in existence for more than a generation. The Industrial Schools have done admirable work with limited means—have indeed done surprisingly well by their charges and turned out useful citizens of both sexes. As reforming institutions therefore they may claim to have been successful, but as preventive institutions in the fullest sense their good work

* *See* page 23.

has been neutralised by the lack of interest in them displayed by the Local Authorities as a whole, and by the absence of anything like a check on a too free use of them by the School Boards. It is quite possible, indeed, that there may be some connection between the non-contribution of School Boards towards the education of their children in Industrial Schools and the serious nature of the figures given in the table on page 14. Even the admirable work done by the Glasgow Juvenile Delinquency Board—than which there is no better public body in the Kingdom—is not as completely successful as it might be on account of the Glasgow School Board being able to make use of the schools without cost to its own rate. The penny in the pound rate of the Delinquency Board has had to pay for the failures of the School Board system, and it is, therefore, hardly surprising that the penny rate will not much longer be sufficient. The two Boards work together harmoniously and the rates of both come out of the same pocket, but nevertheless the system is not a good one, inasmuch as there is lacking the fullest possible inducement for the School Board to perfect its arrangements for checking truancy and its attendant ills in the earliest stages. A step in the right direction, however, was taken in 1905, when the School Board opened a Truant Industrial School of its own. For the first time on record a Scottish School Board is managing an Industrial School and will be able to appreciate the unreasonableness of being asked by other School Boards to maintain their children free of charge. In course of time the attitude of School Boards towards the Industrial Schools may improve, and, recognising their obligation to contribute, they will no doubt adopt better measures for obviating the necessity for so much resort to residential schools. The ultimate result may mean a reduction in the number of inmates of Industrial Schools, but on the other hand those schools with a more adequate and more assured income will be in a better position to bear favourable comparison with their English rivals.

The chief figures with regard to the Industrial Schools are as follows :—

There were on 31st December, 1906, 133 Industrial Schools in operation, 102 in England and Wales and 31 in Scotland.*

They were distributed as follows :—

England.—Boys, Protestant 49, Roman Catholic 13, Jewish 1.
Girls, Protestant 28, Roman Catholic 9, Jewish 1.
Boys and Girls, Protestant 1.

* Three English Schools, (St. John's, Walthamstow, Falkner Street, Liverpool, and Ashburton House, Newcastle), and one Scottish School (Stirling Boys), have resigned their certificates. On the other hand a School for Jewish Girls has been opened at Stamford Hill, and the London County Council's School for Mentally Defective Boys has been certified as an Industrial School.

Scotland.—Boys, Protestant 13, Roman Catholic 3.
Girls, Protestant 11, Roman Catholic 3.
Boys and Girls, Protestant 1.

The NUMBERS of children under detention in the schools on December 31, 1906, were—boys 12,484, girls 4,244 ; total, 16,728 ; viz. :—

England.—Boys, Protestant 6,925, Roman Catholic 2,301, Jewish 59.
Girls, Protestant 1,853, Roman Catholic 999, Jewish 9.
Scotland.—Boys, Protestant 2,596, Roman Catholic 603.
Girls, Protestant 873, Roman Catholic 510.

Of these there were—

——	Boys.	Girls.	Total.
On licence	623	280	903
Absconded and not recovered	16	6	22
In Working Homes	148	1	149

Total number in the schools, viz., 11,697 boys and 3,957 girls, 15,654 ; showing a decrease of 60 boys and an increase of 57 girls as compared with the previous year.

The numbers retained in the schools waiting situations after the expiration of term were 21 boys and 7 girls ; total, 28.

The ADMISSIONS to Industrial Schools in 1906, deducting transfers, were—boys 2,877, girls 890 ; total, 3,767.

Distributed as follows :—

England.—
Boys, Protestant 1,596, Roman Catholic 477, Jewish 20.
Girls, Protestant 407, Roman Catholic 191, Jewish 5.

Scotland.—
Boys, Protestant 647, Roman Catholic 137.
Girls, Protestant 183, Roman Catholic 104.

These numbers show an increase of 253 boys and of 43 girls on those of 1905, the number of admissions for that year being 3,471.

AGES on admission were—

——	Boys.	Girls.	Total.
Under 6	43	42	85
From 6 to 8	185	121	306
„ 8 „ 10	506	187	693
„ 10 „ 12	1,072	256	1,328
„ 12 „ 14	1,071	284	1,355
Total	2,877	890	3,767

At the time of committal FAMILY CIRCUMSTANCES were given in the following cases—

—	Boys.	Girls.	Total.
Illegitimate	166	96	262
Both parents dead	63	26	89
Father dead	320	98	418
Mother dead	332	124	456
Deserted by both parents	66	23	89
One or both parents destitute or criminal	88	74	162
	1,035	441	1,476

The DISCHARGES from Industrial Schools in 1906 were—boys 2,918, girls 809 ; total, 3,727 ; showing a decrease of 224 boys and of 71 girls compared with the previous year.

They were distributed as follows :—

—	Boys.	Girls.	Total.
To employment or service	1,389	653	2,042
Placed out through friends	644	84	728
Emigrated	163	34	197
Sent to sea...	403	—	403
Enlisted	232	—	232
Discharged from disease	28	15	43
Committed to Reformatories	12	4	16
Died	40	17	57
Absconded, not recovered	7	2	9
Total	2,918	809	3,727

The TOTAL ADMISSIONS to Industrial Schools (excluding transfers) up to December 31, 1906, were—118,100 boys and 32,078 girls ; total, 150,178.

The TOTAL DISCHARGES to the same date (excluding transfers) were—boys 105,595, girls 27,827 ; total, 133,425.

The RESULTS of Industrial Schools, as tested by the proportions in regular employment, in casual employment, convicted, and unknown, of those discharged in 1903, 1904, and 1905, were as follows :—

The total discharged in those three years, omitting deaths, transfers, and committals to Reformatory Schools, was 11,390, viz., boys 8,921 and girls 2,469.

Of the 8,921 boys, 115 had since died, leaving 8,806 to be reported on : of these—

7,567 or about 86 per cent. were in regular employment,
440 „ 5 „ in casual employment,
392 „ 4 „ convicted or re-committed,
407 „ 5 „ unknown.

Of the 2,469 girls, 47 had since died, leaving 2,422 to be reported on : of these—

2,177 or about 90 per cent. were in regular employment,
88 „ 4 „ in casual employment,
21 „ 1 „ convicted or re-committed,
136 „ 5 „ unknown,

giving an approximate percentage in fuller detail as below—

——	In regular employment.	In casual employment.	Convicted.	Unknown.
ENGLISH SCHOOLS :				
Protestant ... Boys	87	5	4	4
„ ... Girls	88	6	1	5
Roman Catholic Boys	85	6	4	5
„ ... Girls	94	2	—	4
SCOTCH SCHOOLS :				
Protestant ... Boys	86	4	5	5
„ ... Girls	87	3	—	10
Roman Catholic Boys	77	4	9	10
„ ... Girls	96	—	2	2

For Industrial Schools the financial returns show the following results :—

The average cost of maintenance, including rent and disposal expenses, and allowing for the profits of the industrial departments, which were chiefly from farming and hire of labour, or from the indoor trades, such as tailoring and shoemaking, brushmaking, carpentry, firewood cutting, &c., was as follows* :—

	£	*s.*	*d.*
In mixed schools for boys and girls :—			
England	19	12	8
Scotland	17	5	4
In schools for boys only :—			
England	23	15	10
Scotland	17	2	10
In schools for girls only :—			
England	21	1	5
Scotland	17	12	2
In Industrial training ships :—			
England	23	15	11
Scotland	20	15	7

* According to the report of the Departmental Committee on Poor Law Schools published in 1896 (C.—8,027) the average cost per head in 21 such schools was £24 3*s.* 1*d.*, exclusive of interest on loans.

The amounts recovered from parents, and in Scotland from parents and parochial boards, during the year, were—

	£	s.	d.
England and Wales ...	15,669	6	5
Scotland	5,609	19	11
	£21,279	6	4

Showing a decrease of 86*l.* 18*s.* 0*d.* on the amount collected in the previous year.

The RECEIPTS and EXPENDITURE for Industrial Schools, excluding Truant Schools, were as follows :—

RECEIPTS.

	ENGLAND.			SCOTLAND.		
	£	s.	d.	£	s.	d.
Treasury allowance	114,284	14	4	52,906	12	4
Payments from County and Borough rates.	78,414	3	9	13,902	7	5*
Payments from education authorities, &c.	77,507	14	1	1,204	17	0†
Payments from parochial authorities.	5,976	13	6	253	10	2
Subscriptions, legacies, &c. ...	38,090	1	7	8,303	12	0
Payments for voluntary inmates	2,965	15	2	437	6	0
Sundries	5,445	0	0	3,078	5	6
Profits from industrial departments, including hire of labour— England...3,563*l.* 0*s.* 4*d.* Scotland...1,536*l.* 18*s.* 2*d.*	17,135	18	2	4,853	19	9
Total income ...	£339,820	0	7	84,940	10	2

EXPENDITURE.

Salaries	78,965	13	1	20,965	11	3
Food	75,119	9	11	23,533	18	5
Clothing...	36,440	7	11	11,154	8	3
Rent	5,572	5	8	2,334	16	9
Disposal on discharge	12,083	9	5	2,533	19	6
Building and Capital Account	40,017	2	4	2,418	15	0
Loss on Industrial Department...	688	14	3	90	11	1
Sundries, including furniture, rates, &c.	93,519	15	4	23,074	18	4
Total expenditure ...	£342,406	17	11	86,106	18	7

* Including £11,254 16*s.* 3*d.* from the Glasgow Juvenile Delinquency Board.

† Including nearly £500 from English Education Authorities.

Truant Schools.

The objective of the School Boards was, perhaps inevitably, school attendance, and in the enforcement of this the Industrial Schools were found useful in the last resort. Between 1870 and 1876 a number of truants were sent to Industrial Schools under section 16 of the Industrial Schools Act, the parents pleading in self-defence that the children were beyond their control. To send children to a residential school from which they could not be licensed out before 18 months had elapsed, and where they would probably be retained till close on 16 years of age, appeared to be a very drastic and expensive remedy for mere non-attendance. The Elementary Education Act of 1876 provided, therefore, that a child sent to an Industrial School at the instance of a local education authority could be licensed-out after one month conditional on attending an Elementary School, and within two years some of the more enterprising School Boards had established Industrial Schools of their own to give effect to the new provision. These special Industrial Schools became known as Truant Industrial Schools, or Truant Schools. Two such schools (Upton House, London, and Hightown, Liverpool) were opened in 1878 and one (Sheffield) in 1879. By the end of 1893, 15 Truant Schools in all were in operation in England and Wales, and for a number of years the total number of boys in the schools averaged about 1,220, with between 4,000 and 5,000 on Licence.

At first the Truant Schools were not pleasant places. They smacked of the prison rather than of the school; provision for solitary confinement was more evident than that for instruction, and it is some consolation to think that the schools were never used for girls. The appointment of officers who had had experience in Industrial Schools, however, gradually led to the adoption of more enlightened methods, and during recent years less regard has been paid to mere paper results and more to the quality of the successes, with the result that even the former showed an improvement, and such Truant Schools as Upton House and Highbury in London and the Midlands School at Lichfield, succeeded in accomplishing in the course of a few months and at the latest by the time the boy was 14 years of age, everything that could be desired in the way of giving him such a start in life as should ensure his ultimate success, provided always that the home surroundings were not too unfavourable. But just as the schools appeared to have solved the problem the number of boys committed to them began from various causes to decline, till at times the number in the schools fell below 1,000, and though, mainly through the opening of a school in Scotland, the total at the end of 1906 had risen to 1,232 the number of boys on licence is only about one half of what it formerly was, and many of the English Schools are far from being full.

The Swansea School has been converted into an ordinary Industrial School, the Brighton School (Purley Lodge) and the one at Plymouth have been closed and the Bristol School is closing this year. Two or three of the remaining schools have obtained permission to receive cases sent under the Industrial Schools Act, on the understanding that an effort will be made to effect such an improvement in the home surroundings as may render early licensing feasible. The fact is that there is often little or no difference between the circumstances of the two sets of cases, the Local Authorities merely showing a preference for procedure under the Education Acts, either because they think (probably erroneously) that it will be less likely to injure the boy's prospects, or because they are more familiar with it, or hope that an attendance order on the child or fining the parent may have the desired effect. Where these two courses fail nowadays, it may very well be assumed that there is something else the matter beyond mere truancy, for roughly speaking it is only the boy of vicious tendencies or wretched parentage and surroundings who fails to attend school after due warning has been given. The Education Authorities have reduced mere truancy to a minimum, and if they desire to effect a like reduction in the amount of non-attendance they will need to turn their attention to the parents and the homes. School Boards did not always realise that their mission was a social one, and some time may yet elapse before their successors really understand the nature of the work which has to be done. When they do they may possibly discover that even perfect school attendance is not always a good sign, but that amongst those who are earning prizes and medals are to be found boys who are more guilty than many a youngster who is sent to a Reformatory, boys who, though leading an exemplary school life and living in decent homes are, out of school hours, the instigators of many a robbery, and the receivers of the lion's share of the plunder. Occasionally one of these boys gets caught through having ventured into the firing line himself, instead of directing operations from a safe distance. Being his "first offence," and all appearances being favourable, he is let off as a sheep who has by chance strayed into the company of goats. Were he sent to a Reformatory or Industrial School such testimony would be brought forward as to his good conduct and respectable home surroundings that there would appear to be no just ground for detaining him. The question is what becomes of these boys? So far they have escaped because attention has been concentrated on school attendance as the sure indication of a blameless life, and the attendance officer has unduly encroached on the province of the police. If two boys are concerned in a robbery the one who has been attending school will get off scot free, while the little truant, possibly the less dishonest of the two, will be "put away." Some years later when the latter returns to his home the fact of his having been sent to a school will tell against him, and once again he will be

made an example of, while the more guilty will escape punishment. And so on, until there is nothing left for him but to join the criminal ranks in earnest, as nobody will give him credit for belonging to any other. Punishing boys for truancy is no more likely to advance the cause of education than punishing people for not attending church would advance the cause of religion. The justifiable excuse for taking forcible possession of a boy is found not in the fact that he does not attend school, but in the circumstances which conduce to his non-attendance, and when he is taken possession of the opportunity should be seized of remedying those circumstances as far as possible, and of cultivating a taste and not a distaste for school in the boy himself. School Boards adopted a directly opposite policy to this. They seized a boy and flung him into a so-called school where every device was resorted to that was calculated to make the word school a terror to him, and at the same time no effort was made to bring influence to bear on his home, or to win the parents over to the side of the authorities, unless threats and fines can be justly recognised as the right sort of effort. But things have gradually and steadily improved; the Truant Schools for the most part have done excellent work in raising the self-respect of the boys, in putting them on their feet as regards schooling, and making them ashamed rather than afraid to come back. They accordingly attend the ordinary Day School with a better grace, and more profitably; their three or four months at the Truant School have transformed them from a nuisance into an example to the rest of the school, and if only the conditions of their homes are such as to give them anything like a fair chance they will continue to be regular and punctual attenders for the rest of their school life. Were all the Truant Schools as good as the best a heroic effort would be made by practically all the boys on licence from them to resist the temptations of the streets, and were the Education Committees to co-operate with managers, as some now seem inclined to do, in an endeavour to improve the home while the boy is held as a hostage and is the cause of certain weekly payments by the parents, the number of failures would in course of time be reduced to a minimum, and a safe, sure and permanent cure would have been effected, inasmuch as the causes of the disease would have been removed. It is not denied that all this may mean a good deal of work and possibly of expense at the outset, but the same can be said of everything that claims to have a lasting effect. The only question is whether the experiment is worth trying. Two of the ordinary Industrial Schools* have volunteered to try the experiment, and have notified the local authorities that the managers will be willing to grant an early licence to boys of good conduct provided the homes are reported as fit to receive them. The managers of the Truant Schools which are receiving Industrial Schools Act cases have undertaken to aim at

* Macclesfield and Birkenhead.

granting early licences to these children in much the same way as to the others.

The title Truant School is becoming more and more a misnomer, and it may be hoped that it will disappear, giving place to the only legal title Industrial School ; but at the same time it is also to be hoped that the number of schools which can claim to be short term Industrial Schools will not diminish but steadily increase. The recent Departmental Committee recommended certain improvements in the Treasury grant to these schools, and no doubt the Committee were perfectly right in supposing that it was only in this way that their growth could be stimulated. At present the Education Committees bear a much greater share of the cost of Truant Schools than they are called upon to do in the case of the ordinary Industrial Schools, and it is becoming more and more difficult to see the reason for this disparity.

The most recently established Truant School, and the only one ever opened in SCOTLAND is that of the Glasgow School Board at Shettleston, a fine school and in many respects worthy of the second city in the Empire. But it is maintained at great expense to the School Board, and there is danger of its being stinted in certain important particulars, notably the provision for expert schoolroom instruction. The Shettleston School, however, will bear favourable comparison with most of the English schools of the same class and may indeed be said to have begun where several of them ended. Not its least claim to importance is that it represents the first real instance of a Scottish School Board identifying itself with the Industrial School system, and before long valuable results may possibly accrue from the excellent example of Glasgow.

All the Truant Schools are owned and managed by local Education Authorities either separately or, as in the cases of the North London, the Holme Court, Isleworth and the Midlands, Lichfield, by a combination of two or three Education Authorities acting in partnership for the purpose.

The following table will give some idea of the amount of work done by the schools during the last 28 years :—

Schools.	Date of Certificate.	Total No. of Admissions.	In School Dec. 31st, 1906.	On Licence Dec. 31st, 1906.
Plymouth	March 7, 1882 ...	2,119	Closed in 1906.	
North London ...	May 10, 1884 ...	3,831	106	264
West Ham	May 19, 1885 ...	1,959	41	80
Swansea*	October 5, 1882...	1,172	—	—
South Wales	November 8, 1893	2,037	80	187
Cardiff and Barry ...	April 21, 1899 ...	1,336	104	252

* Converted into an ordinary Industrial School in 1901.

Schools.	Date of Certificate.	Total No. of Admissions.	In School Dec. 31st, 1906.	On Licence Dec. 31st, 1906.
Bristol	July 27, 1883 ...	2,415	29	89
Hightown	December 13, 1878	7,398	119	557
Upton House	October 8, 1878...	6,099	136	122
Highbury	March 12, 1891 ...	5,001	172	176
Holme Court	May 15, 1891 ...	1,624	72	96
Midland (Lichfield) ...	December 28, 1893	2,024	86	101
Purley Lodge	October 13, 1882	1,186	Closed in 1905.	
Hull	July 1, 1884 ...	2,675	62	205
Sheffield	March 5, 1879 ...	2,746	88	253
Glasgow	June 27, 1905 ...	432	139	189

The ADMISSIONS to Truant Schools in 1906 were 1,530 boys, an increase of 135 compared with 1905.

The DISCHARGES were 1,501 boys, a decrease of 83 compared with 1905.

The NUMBERS actually in the schools on the 31st December, 1906, were 1,234, with 2,571 on licence.

The AVERAGE COST per head for maintenance, allowing for profit or loss of the industrial departments, was 27*l.* 17*s.* 8*d.* The total expenditure was 31,364*l.* 14*s.* 1*d.*, towards which the Treasury contributed 6,761*l.* 16*s.* 10*d.* and the Education and other Local Authorities 23,719*l.* 15*s.* 4*d.*

The TOTAL ADMISSIONS to the 31st December, 1906, omitting Swansea, were 42,882, of whom 21,410 had been licensed and not re-admitted, 10,561 licensed and once re-admitted, and 8,396 had been re-admitted twice or oftener.

The average length of detention was about 17 weeks 6 days in cases of first admission, 23 weeks 3 days in those of first re-admission, and 29 weeks 1 day in those of second re-admission, showing an increase respectively of 1 week 5 days, 2 weeks 6 days and 3 weeks 6 days, compared with the previous year.

DAY INDUSTRIAL SCHOOLS.

Though the Residential Industrial Schools and, in Scotland, some of the Reformatories also, were developed out of Ragged Schools, the last named were really the prototype of the Day Industrial Schools which first began to be established by English School Boards in 1878, in pursuance of powers conferred by the Elementary Education Act of 1876. Any child coming within the scope of the Industrial Schools Act could be sent to a Day Industrial School if there were one within two miles of its home. The school was to be opened from 6 a.m. to 6 p.m., three meals were to be provided each day, and in addition to the ordinary elementary instruction there was to be a certain amount of industrial training. The parents were to contribute towards the expenses up to 2*s.* per week. Provision was made for three

classes of children (a) those committed by a court of summary jurisdiction (b) ordered to attend (c) attending by voluntary arrangement. The whole scheme might very well have been drawn up by the Ragged School Union. It cannot, however, be said that this attempt to revive the ragged school as a part of the School Board system has been a signal success. School boards differed in their ideas and methods from the old Ragged Schools' Committees. The latter aimed at the social amelioration of the neglected and outcast, strove to provide an education suitable to the real needs of their charges and realised that meetings for the benefit of the parents were essential to genuine success. The school boards aimed at compulsory school attendance, provided the same curriculum for all, and coerced rather than coaxed the parents. The Residential Industrial Schools had meanwhile been firmly established and were justifying their existence. The presence of an influential philanthropist on the School Board led sometimes to the establishment of a day industrial school and to a certain amount of sympathetic support as in Liverpool and Bristol. For the most part, however, the schools were established with a view to providing a less expensive substitute for the Residential Industrial School in the enforcement of school attendance. But as the Treasury grant had been limited by statute to 1*s.* a week per head and in certain cases to half that amount it was soon found that it was really less expensive to the rates to pack a child off to an Industrial School and be done with him than to maintain a day Industrial School specially for his benefit. It happened therefore that generally speaking a Day Industrial School was no sooner certified than active interest in its operations languished and it lingered on, a feeble and neglected step-child, or suffered a more or less violent death. Day Industrial Schools were started only to be relinquished after a more or less protracted trial at Gloucester, Oxford, Oldham, Yarmouth, Gateshead, Sunderland, Newcastle, Nottingham, and finally Blackburn.* Three of these schools had made a brave start in new buildings specially erected for the purpose, the others had to put up with any old building that happened to be available, but in most cases were none the worse off on this account if the right sort of spirit prevailed in the management. The list of failures given above is relatively a long one, and critics contend that Day Industrial Schools have yet to prove their utility, that, in fact, they have only so far proved their uselessness. One might as well throw a dog into the water with a stone round his neck and argue from the result that dogs are unable to swim.

Day Industrial Schools have not yet had a genuine chance of proving their utility in the fullest sense of the term. The London schools, the last to be established and practically in a class by themselves have been given a sporting chance. Indifferently housed and inconveniently situated, they have nevertheless with the few children consigned to them gone a long way

* The Blackburn Day Industrial School is closing this year.

towards proving what a useful institution a Day Industrial School can be if it provides the right sort of training for the children with well considered means of disposal, and endeavours to exercise a benign influence over the parents without conceding too much or for one moment allowing them to forget their responsibility. The London schools have aimed at all this, and in doing so have demonstrated that a Day Industrial School can be a very potent centre of social effort stemming in some measure the flow of parental neglect and vicious upbringing at the source—the advanced guard of the reformatory and industrial school system. There will for many years have to be a strong force of Residential Schools in reserve, but if the two classes of institution are made to co-operate in accordance with a well-considered scheme, the original idea of the Industrial Ragged School—a combined Residential and Day School—will have been perfected, the latter part fighting at close quarters, the former at a distance.

In Scotland the Glasgow Juvenile Delinquency Board, ever ready to establish any class of school which was likely to be of service, has by virtue of a special Act passed in 1878, established four Day Industrial Schools and managed them with a warm hearted enthusiam worthy of all praise. The Delinquency Board, indeed, combines the advantages of a Ragged School committee with the power of a School Board to (through the Commissioners) levy a rate. The rate, however, is limited to a penny in the pound, and it is surprising to find how much has been done without exceeding that limit. The Glasgow Day Industrial Schools, though doing School Board work, receive no help from the School Board Rate, and have therefore to be carried on with a strict regard to economy, an economy which, unfortunately for the devoted and hard-working teachers, is particularly evident in the salary list. Still they are most useful and interesting schools and, though not reaching the level of those in London as regards industrial training, will bear comparison with the other English schools especially as regards the training and disposal of the girls. The only other school of the kind in Scotland is the one established by the Edinburgh School Board in 1898, and it is gratifying to find that certain members of the Board are paying particular attention to the important matters of disposal and after-supervision of the children who leave the school.

There are 21 Day Industrial Schools under inspection, of which 16 are in England and 5 in Scotland, 4 of the latter being in Glasgow (under a special Act) and one in Edinburgh.

The numbers of children attending Day Industrial Schools on 31st December, 1906, were :—

Boys, 2,104 (being 132 less than at the end of 1905.)
Girls, 1,180 (being 111 more than at the end of 1905.)

Total, 3,284 (being 21 less than at the end of 1905.)

and 131 boys and 96 girls were on licence.

The ADMISSIONS to Day Industrial Schools in 1906 were :—

Boys, 1,223 (93 less than in 1905.)
Girls, 744 (70 more than in 1905.)

Total 1,967 (23 less than in 1905.)

The DISCHARGES were :—

Boys, 1,369 (118 less than in 1905.)
Girls, 628 (7 more than in 1905.)

Total 1,997 (111 less than in 1905.)

The total receipts, including 276*l.* 10*s.* 2*d.* profit in industrial departments, were 38,292*l.* 11*s.* 7*d.*, towards which the Treasury contributed 7,807*l.* 5*s.* 2*d.*, education and other local authorities 26,819*l.* 19*s.* 6*d.*, parents 2,817*l.* 0*s.* 6*d.*, parochial authorities on behalf of parents 384*l.* 14*s.* 7*d.*

The total expenditure, including loss of 221*l.* 5*s.* 8*d.* in industrial departments, was 38,153*l.* 7*s.* 10*d.*

The average cost per head was 12*l.* 15*s.* 8*d.*; and for food 3*l.* 5*s.* 9*d.*

The decrease in the number of children is only slight notwithstanding the closing of two of the schools (Oxford and Sunderland) during the year, so that it is evident that the authorities which are retaining their schools are making more use of them than formerly, especially for girls. This may be due, in some measure, to a difficulty in finding room in the residential Schools, but also, it may be hoped, to the discovery that the Day Industrial School is not such an unsuitable place for girls as some people are ready to believe. It will be seen by the figures given above that the Treasury grant amounts to about one-fifth of the expenses. Were the recommendation of the Departmental Committee adopted, viz., that the grant should be doubled, it would still be less than one half of the cost, but the concession would undoubtedly have the effect of giving new life to a class of school which in the public interest it is desirable to encourage.

AUXILIARY HOMES.

In the disposal of children to earn their own living, the managers found it advisable, if not necessary, to provide a half-way house between the secluded life of the school and the rough and tumble of the outside world—a home with more liberty than a school can allow, but at the same time affording some protection to the child until he should be able to fend for himself, and, more especially while his wages were low, providing him with the necessaries of life under more favourable conditions than would be possible with his friends and relations. These Homes are certified as an integral part of the school, and in some cases as a part of several schools. The former have been the more

uniformly successful, and the two in Liverpool (Grafton Street and Everton Terrace), the one in Ardwick Green, Manchester, besides similar Homes in Glasgow and Dundee, have admirably fulfilled their purpose. The existence of such Homes enables the Managers to exercise their powers under the Amendment Act of 1894 more freely than would otherwise be the case in providing a place to which a boy can be recalled with less danger or inconvenience than to the school itself. In this connection similar Homes should be particularly useful for girls when out of a situation, whether through their own fault or otherwise. The Managers of the Perth Girls' Industrial School have started such a Home, and the five Homes belonging to the Metropolitan Association for Befriending Young Servants which have been certified have proved of great assistance to several of the Girls' Industrial Schools in and near London.

The opening of an Auxiliary Home is always a sure sign of a determination on the part of a school to advance and improve. Of the four Homes certified in 1906, one is in connection with the St. Nicholas School, Ilford, which has made prodigious strides during the last two years, another is in Sunderland, and two (Grays Shipping Home and the South Wales Home at Llandilo) are for the use of the London County Council's Schools. At the end of 1906 there were 30 Homes (24 for boys and 6 for girls) holding the Secretary of State's certificate. One would gladly see the number still further increased, for such Homes are a source of strength and effectiveness to the schools possessing them, and when rightly used constitute not the least important factor in the whole system.

Education and Industrial Training.

That the boys and girls enter the schools nowadays better equipped educationally than was the case 50 years ago may be safely inferred, but that there has been much improvement in this regard during the last ten years is open to doubt. The schools still continue to receive children of 13 or 14, who, judging by their state of ignorance, have successfully evaded the attendance officer up to the last; the irregular attenders, and consequently backward scholars—the children whom the elementary schools have failed to attract, much less to educate. But a new class of child is now added to the list, the boys—for it is more often boys than girls—who have attended fairly regularly and have been led to regard themselves as Standards V. or VI., but would find great difficulty in honestly passing a Standard I. test. These children have acquired the ignoble art of wasting time and therefore present special difficulty. Generally, there is a more marked lack of accuracy than formerly, especially in spelling, but on the other hand one encounters occasionally amongst the newcomers children who do great credit scholastically to their former teachers—children whom it is a pleasure

to hear read, who can calculate quickly and well, answer questions with intelligence, and can make a very fair attempt at original composition. This may also fairly be called a new class of children and can be put on the credit side of the account. That these children do occasionally stand out head and shoulders above the rest of the senior group in which they are encountered goes to show that there is still plenty of room for improvement in at least some of the Reformatory and Industrial Schools as regards the literary education. The general average, however, is good, and, as far as it goes, as sound as one could well wish for. Where it falls below the average and the year has not been broken by changes in the staff, the cause is generally to be found in the fact that too much regard has been paid to endeavouring to anticipate the tests that will be set and the questions that will be asked by an examiner and not enough to the laying of a proper foundation which will endure throughout life and which can always be depended upon for an intelligent attempt, which after all is very much more valuable and creditable than accidental success. In one very important matter the Home Office Schools have lately been setting an excellent example, viz., in the co-operation of the schoolroom with the industrial training. The application of drawing to the various trades in the shops, lessons and lectures by the schoolroom teacher bearing on those same trades or industries, practical arithmetic in the form of accounts in connection with the garden plots cultivated by the boys or the mimic housekeeping practised by the girls, occasional visits to factories, museums, &c.—only to mention a few—all tend to make the education real, useful, and thorough, to cultivate observation and thought, and make occupation more attractive than idleness. To have done this last is to have more than half solved the problem of industrial training. Twenty years ago one of the Reformatories possessed excellent facilities for industrial training, and boasted the finest workshop to be found in any institution in the country. But all this did not save the school from having recorded against it at least 20 per cent. of reconvictions, only outdistanced in this respect by another Reformatory, which was also seemingly well provided in the matter of trade shops. It is well to have good shops and even to do a fairly brisk business, but the boys must clearly understand that the shops are being run for their benefit, and this they will only do if there is a definite scheme of instruction with which nothing is allowed to interfere. Nor is this quite all. It must be brought home to them that the instruction leads to something definite and tangible in the world outside after they shall have left the school. In many of the schools, accordingly, lists are being posted up in each shop showing the names of the boys who left during the year to follow the particular trade, either in the Army or with a private employer, the title of the Regiment or the name of the firm being appended in each case. Such an arrangement as this—first started, it is believed, at the Boys' Home, Regent's Park—serves more than one useful purpose; it encourages the

boys, stimulates the instructors, and demonstrates to the managers the practical utility of a particular shop. For, what is the use of the best appointed shop if it does not lead to employment? The advanced classes at Redhill and other schools have been useful in giving to lads who enter the Army a chance of securing promotion, but the first school to start a special army class confined to lads who have made up their minds to enlist is the Stoke Farm Reformatory. The necessary books and technical information have been procured, and 20 or 30 boys are being periodically examined by an Army schoolmaster, who has already been able to say that a large proportion of the class would pass the examination for second class certificate. Other schools will not be too proud to follow the lead of Stoke Farm, and the experiment will be a highly interesting one to watch. Ten years, perhaps five years, hence it will be instructive to see what proportion of these lads have been a real acquisition to their regiments and a credit to their old school. Perhaps if the Industrial School training ships had started special Naval classes a few years ago for selected boys the Navy would not be now showing so much reluctance to recruit from them.

This year the industrial training of both girls and boys is being tested without notice, and, it is believed, with satisfactory results. The object is not to catch the schools napping, for it was felt that they would welcome the innovation, and as no murmur has reached the office the surmise was no doubt well founded. An inspector, like a photographer, prefers to catch the natural expression, for whatever may be the defects he knows that the picture will be more pleasing. It may be possible in course of time to snapshot the schoolroom classes also, and thereby get rid of the inevitable posing which is apt to detract from the value of the picture, though the opposite effect is intended. Each individual child must of course continue to figure in the group, but as this is being found possible as regards drawing and trade instruction there should be no insuperable difficulty as regards the other departments.

Physical Training and Recreation.

If there is one particular more than another in which the schools under Home Office inspection have not only made a remarkable advance but have taken a leading part, it is in the successful way in which physical training and organised games have been tackled. Like everything which is not only useful and beneficial in itself but which is carried out thoroughly and in the right spirit, this physical training has had far reaching effects in other directions. It has given tone and character to the schools, promoted good fellowship between schools and districts, and is gradually making the unit not an individual or a school or even a district, but the whole body of Home Office Schools. Nothing else could effect this so well, or even attempt

to. For on the football field, the cricket field, or sports ground, in the swimming bath or in the gymnasium the schools can meet on common ground. There are four Athletic Associations in England, the Northern, the Southern, the Midland, and the Western, and one for Scotland. Each Association has its football and cricket league, holds annual and other meetings, and the English Associations generally hold athletic sports and swimming competitions. It is always a pleasure to attend at these various matches and gatherings, and particularly gratifying to witness instances of genuine sportsmanship and generous good feeling. The boys are taught by example to be keen and yet fair, to resist the temptation to take undue advantage, to applaud without a show of too much partisanship, not to be too elated with success or made sullen by defeat. The Southern Association is now the most comprehensive, all four classes of schools being represented. This year for the first time the Reformatories have been admitted to the Northern Association and have proved themselves as full of good feeling and real sportsmanlike qualities as could well be desired. Thanks are due to the various Hon. Secretaries and numerous gentlemen who bestow no little labour and often a good deal of money in encouraging the maintenance of these Associations.

The physical training in the girls' schools necessarily takes a milder form, but the Swedish exercises now to be found in most of them, often conducted by a visiting instructress, are gradually producing a marked improvement in the gait and carriage of the girls.

As showing the readiness of the schools to keep abreast of the times, mention may be made of the miniature rifle ranges which are being improvised, and which, as they become more general, will afford another means for healthy rivalry amongst the schools and provide yet another instrument in the important process of character building.

Health.

On the following page is given a table showing the death-rate in the various classes of schools for the year 1906. The general death-rate is slightly higher than that for the previous year, being 3·52 as against 3·31 but remains lower than that for 1905 when it was 4·05. Of the 14 deaths in Protestant Boys' Reformatories seven of them relate to the two ships the "Cornwall" (5) and the "Akbar" (2). So that the rate for the shore Reformatories is singularly low. In this connection it may be remarked that whereas the "Clarence" ship used invariably to have its two or three deaths and several discharges on account of unfitness in the year, its successor, the Farnworth Nautical Shore School has a clean bill for 1906. Occasionally the death-rate on a ship is swollen by an unfortunate accident, but at the same time it would be advisable for Committing Authorities to exercise much greater discrimination than appears to be the case in sending boys to

TABLE showing the NUMBER of DEATHS and DISCHARGES on ACCOUNT of UNFITNESS for REFORMATORY or INDUSTRIAL TRAINING during the Year ended 31st December, 1906.

—	England.					Scotland.				
	Average No. of Inmates.	No. of Deaths.	Rate per 1,000.	Number Discharged Unfit for Training.	Rate per 1,000.	Average No. of Inmates.	No. of Deaths.	Rate per 1,000.	Number Discharged Unfit for Training.	Rate per 1,000.
Reformatory Schools:										
Boys, Protestant	2,821	14	4·96	10	3·54	390	—	—	—	—
Girls, Protestant	333	1	3·—	5	15·02	96	—	—	—	—
Boys, Roman Catholic ...	643	1	1·56	1	1·56	199	2	10·05	1	5·03
Girls, Roman Catholic ...	150	—	—	—	—	—	—	—	—	—
	3,947	16	4·05	16	4·05	685	2	2·92	1	1·46
Industrial Schools:										
Boys, Protestant	7,129	18	2·52	12	1·68	2,525	4	1·58	10	3·96
Girls, Protestant	1,829	5	2·73	3	1·64	853	5	5·86	5	5·86
Boys, Roman Catholic ...	2,188	13	5·94	3	1·37	546	4	7·33	3	5·49
Girls, Roman Catholic ...	1,064	5	4·7	1	·94	468	2	4·27	6	12·82
	12,275*	42	3·42	19	1·55	4,392	15	3·42	24	5·46
England and Scotland combined:										
Reformatory	4,632	18	3·89	17	3·67					
Industrial	16,667*	57	3·42	43	2·58					
Total	21,299*	75	3·52	60	2·82					

* The figures relating to the Hayes and Stanford Hill Industrial Schools for Jewish children (see page) are only included in the totals for Industrial Schools.

training ships, where the life must necessarily demand a robust constitution. Of the 18 deaths in English Protestant Industrial Schools 11 relate to seven institutions, viz., three ships ("Clio" "Wellesley" and "Southampton") and four town schools (Gateshead, Park Row, Clifton, and Grafton Street). The comparatively high death-rate in the English Roman Catholic Industrial Schools may to some extent be accounted for by the fact that a large proportion of them are town schools. The two Catholic Industrial Schools in Scotland which are debited with three out of the four deaths are, however, the two which may be said to enjoy an open situation. One of them, Tranent, has had other difficulties to contend against and by gallant efforts has been able to effect improvement, not only in the death-rate but in the matter of general health; and the same may be said of the other school, the Glasgow Catholic Orphanage for Boys, since it has moved out to a new building at Bishopbriggs.

Generally the return may be regarded as eminently satisfactory and as a correct index to the state of the schools, which as a rule reflects great credit on all concerned—Managers, Superintendents, Matrons, and Medical Officers. The present satisfactory state of affairs—the absence of institutional diseases and the power of the children to successfully resist infection—is due to several contributory causes but mainly, perhaps to an annual change of air, to improved dietary and means of ventilation, to periodical medical inspection of all the children, and to a careful attention to details by the staff, without which the most assiduous Medical Officer would find his task a well-nigh impossible one. The registration of the weights and measurements of the children at regular intervals during each year is being found more and more useful as a means of indicating individual ailing and it is hoped that the practice will soon become universal.

Castle Howard Reformatory had a most anxious time during several months of the year owing to its water supply being cut off and the drains being old and defective. An outbreak of diphtheria followed, but thanks to extraordinary exertions and care, not one of the cases ended fatally and the school has not helped to swell the rate in the present return either as regards deaths or discharges on account of unfitness. Prompt measures have been taken to remedy all the defects and bring the whole system of sanitation and drainage up to the best possible standard.

The amount of attention bestowed on the care of the children's teeth continues steadily to increase in volume and in skill. Toothbrushes are being more generally supplied even in big boys' schools, and the services of dentists are engaged as much for preservation as was formerly the case for extraction.

Disposal and Results.

The first table of results was published in the Inspector's Report for 1859, and had reference to all the young offenders

who had been discharged from English Reformatories up to the end of 1858. Of the boys, about 55 per cent. were returned as doing well and about 13 per cent. as reconvicted. For the girls, the percentages were respectively 44 and 16. The remainder in both cases were unknown or doubtful. The figures for Scottish Schools were first given in the report for 1860 and showed the following percentages: boys 53 per cent. doing well, 8 per cent. reconvicted; girls 23 per cent. known to be doing well, 8 per cent. reconvicted, and over 60 per cent. unknown or doubtful.

Twenty-one years later the proportion of Protestant boys said to be doing well was 80 per cent. in both countries and reconvicted about 11 per cent. The Catholic boys showed about 60 per cent. doing well and over 20 per cent. reconvicted. The Catholic girls in both countries showed better results than their Protestant sisters, viz., 85 per cent. doing well as against 69 in England and 65 in Scotland, and 4 per cent. reconvicted in England as against 5; and in Scotland 11 per cent. against 14 per cent.

It is interesting to notice how the relative success of the two countries, the two sexes, and the two religions have continued to be much the same throughout.

According to the table on page 13, it will be seen that the Reformatories of England still continue to show better results than those of Scotland, and that if the Protestant boys do show slightly better results than those of the Roman Catholic boys, the tables are turned in the case of the girls. The same remarks apply also in almost all particulars to the Industrial Schools, the one exception being that the Catholic Girls Schools in Scotland for once in a way show the larger percentage of reconvictions, viz., 2 per cent. against nil. It is only fair to remark that once an ex-inmate has been reconvicted he or she counts as a reconviction against the school during the remainder of the three years covered by the returns, despite the fact that in several cases a complete reclamation may have taken place. Appendix VIII. (B), page 180, shows the number and percentage of reconvictions of those figuring in the return which actually occurred in the one year 1906.

During recent years nothing has been more remarkable or indeed more satisfactory than the steady decline in the number of reconvictions in the case of the English Catholic Reformatories, due largely to the extraordinary improvement in the results from the Birkdale Farm School. In the course of 10 years the percentage of reconvictions has in the case of this one school been reduced from upwards of 30 to barely three. The other three Catholic Reformatories in England promise also to effect a great improvement, and before long we shall probably find that the Protestant Reformatories will have great difficulty in maintaining any superiority, even as regards the number in regular employment. The success of Birkdale Farm in effecting such a wonderful reduction in its percentage of reconvictions—from an

abnormally high figure to an absolute minimum—constitutes one of the greatest, if not the greatest, triumph in the whole history of the schools. Many of the reasons advanced in explanation of the high rate of reconvictions in the case of Catholic boys seemed sound enough at the time, and no doubt there was much truth in them. If so, the success is all the more creditable and striking, It has not been achieved and cannot be maintained without infinite thought, labour, and pains. The Farnworth Nautical School already shows a marked improvement over its predecessor, the "Clarence." St. John's, Walthamstow, may be expected in the course of time to do likewise, and the present Superintendent of St. Williams, Market Weighton, may be trusted to leave no stone unturned till he has achieved as remarkable a triumph as Birkdale Farm. The one Scottish Reformatory for Catholic boys still continues to be far behind every other school in the quality of its results, and if there were many more Reformatories showing as high a percentage of reconvictions the whole system might justly be regarded as a comparative failure. The present Superintendent will no doubt effect some improvement, but he has a very uphill task before him, in living down old traditions and battling with almost every conceivable difficulty that could beset the Superintendent of a school. Still, encouragement may be taken from the success of Birkdale.

A tree is known by its fruit, a school by its results. But it must be remembered that the published results do not necessarily indicate the condition of the school at the date of publication. They refer to boys and girls who have left the schools from one to four years previously, and in the meantime changes may have taken place in the management. Very few, if any, of them may have come under the influence of the present Superintendent or other prominent members of the staff, or had the advantage of the improved arrangements brought about by a more zealous Committee. These remarks apply more or less aptly to the "Cornwall" and "Akbar" ships, and the Bedford, the St. John's (Walthamstow), the North Eastern, the Castle Howard, and the Market Weighton shore schools, all of which show 7 per cent. or upwards of reconvictions. Birkdale has demonstrated that a reduction to 3 per cent. is possible, the Warwick Boys' Reformatory has come very near to it with barely 4 per cent. and "Kerrison," perhaps the best type of English Reformatory, has beaten it with 2 per cent. Writing nearly 50 years ago of the last-named school, the Rev. Sydney Turner said. "This school continues to deserve the attention of all reformatory managers for the great economy and efficiency with which it is maintained;" and again two years later, "Their (the boys') manner and appearance gave me great satisfaction, and reflect great credit on the master, Mr. Gill, who shows how much one earnest man can do, and how successfully kindness and firmness can be mixed." Those words might very well be written at the present time, for 25 years ago the Mr. Gill referred to was succeeded by his son, who has fully maintained the reputation of the school, until now it stands

out with the best record for the year of all the Boys' Reformatories. This record is all the more remarkable and creditable in that it surpasses by a long way some of the most efficient Industrial Schools, including Kent County (6 per cent.) and Desford (8 per cent.). That it will ever be surpassed by any other reformatory is perhaps too much to expect, but until all the schools at least approach it we shall not have achieved the greatest possible success. It is probable that not more than about 2 per cent. of the young offenders are, humanly speaking, hopeless. Kerrison has its full share of boys who have had several previous convictions before admission, and it always has a fair number (about 10 to 15 per cent.) on licence. Though a good proportion, sometimes over one-third, are enlisted, the parents raise no difficulty, and everything seemingly goes on without any trouble. What is the secret of its success? It cannot be money, for the school maintains its old reputation for economy combined with efficiency, and the average cost per head is lower than that of any other school, being nearly £6 less than the average. The situation, though pleasant in summer, is rather lonely and isolated, and the school cannot be said to be well off as regards influential friends who take a burning interest in its work.

It would thus seem that the best possible results can be obtained without some of what are generally regarded as essentials to success, and with no better than the average as regards the raw material. It shows, however, what, as Mr. Turner said, can be done by one earnest Superintendent. He only asks for like earnestness in his subordinate officers, and he can always depend on getting the very last ounce of zeal and devotion from one year's end to the other. If they have any good in them they will stay on happy and contented, none too well paid, perhaps, but never wishing or seeking to change their place. The tone of the school is so friendly and wholesome that a boy must be a ruffian indeed who does not appreciate it and at once fall into line. If he does not one knows how to deal with him. As a matter of fact the roughest and most uncouth do fall into line and soon become indistinguishable from the other smart, well-mannered lads of which the school consists. There is no parade of philanthropy, but the boys feel that everything exists for their good, and they go out from the school as from a good English home to make their way in the world. Last year Kerrison received a letter from the Secretary of State in acknowledgment of the extraordinary success accomplished in the case of a boy transferred from another reformatory as a forlorn hope, and never was such a letter better deserved. Nor is Kerrison the only school which has come to the rescue in difficult cases. It is owing to the fact that the same spirit to be found at Kerrison has animated so many of the Superintendents of the schools that their success has been due. This reformatory spirit cannot be bought with money, fussy clamour for efficiency might injure it, and too much red tape would strangle it. It has been fortunate, therefore, for the successful and natural development of the

reformatory movement that in the administration by the Home Office, though a certain amount of red tape was inevitable in the public interest, it has at the worst been employed as a kicking strap, only felt when there is an attempt to kick over the traces.

Where the genuine reformatory spirit exists, it will influence not only the children but their parents. To have influenced the parents in the best interests of the child is to have won the battle all along the line. If they are not to be thus influenced, then one may be very certain that they are worthless and it only remains to procure exact evidence of their worthlessness and their wishes can be overruled ; and if not left to the last moment the lad will see the wisdom of not returning to his old surroundings. To bring this influence to bear and to obtain the necessary evidence will, as a rule, involve more work and travelling than a Superintendent can well find time for. An agency composed of ex-Superintendents would be likely to provide the very best medium, as best knowing the necessities of the case, and as being the least likely to undermine, or in any way interfere with, the authority of the Superintendent of the School for which the agency was acting. Such an agency is ready to begin operations if only the necessary support is forthcoming from the schools. It is not surprising that when the idea was first mooted it was welcomed most readily by those schools which already show comparatively good results. The spirit that has produced good results will never be satisfied with anything short of the best possible. It is to be hoped that a fair share of the new Aid Grant to Reformatories will be utilised in this direction, and that all the schools will recognise the fact that however efficient the equipment may be, and however promising the situation that has been found for the boy or girl about to leave, disposal will be a leap in the dark unless the old surroundings have been thoroughly surveyed and the parents influenced or check-mated while yet there was time. Briefly the idea is that as soon as a boy or girl enters a school the official information received at the time shall be forwarded to the agency in order that it may be amplified in every direction, so that a complete chart of the home and its surroundings, its dangerous features and its safe anchorages, may be prepared ; further, that where dredging may be useful it shall be attempted, with a view to making a safe channel for the small craft, and above all, if the whole coast is a dangerous one the managers shall know it, and as far as possible see that it is given a wide berth. Experience has shown that the schools do not always know all that they should about the homes, and that the boys and the girls themselves too often only realise the dangers when too late. There is much that local officials of the Education Committee or even of the police force cannot be expected to do, but at the same time their assistance will often be valuable. There will also be in every town and in most districts voluntary agencies and private individuals who will gladly assist, and it will be the

duty of the agency to discover these and enlist their services. Beyond this, of course, there is much to be done in ascertaining the means of employment and prospects offered, and securing suitable situations, besides the subsequent supervision which must be conducted with tact and discrimination. With three or four ex-superintendents in partnership and employing the requisite staff for the clerical work the agency might well cover the whole of England, and have exact information as to all the various associations and private individuals referred to by Mr. Legge last year in his Memorandum to boys' Reformatories.

There is another matter in which improvement might well be effected, viz., in the number returned as "unknown." The schools which show to a disadvantage in this respect are, in addition to those referred to above in reference to the re-convictions, Monmouth and Ipswich. In both of these schools, as in the others, the percentage of unknown is unduly large, and is mainly if not entirely due to the fact that there has been a change of superintendent within the last year or two. Despite all the efforts of the Inspectors, aided very often by the managers, to induce the superintendent to keep the record of disposal up-to-date, and not to depend too much on memory or small private memoranda, it is almost invariably found that a new superintendent succeeds to very scanty information regarding the children who have left, and that even the addresses of several of them cannot be ascertained. A central agency would, it is hoped, be useful in keeping a permanent record which, while not seeking to supersede the one kept at the school, would be helpful in cases of emergency. It would be a misfortune if the agency had to be made an official one supported by deductions from the grants to the schools, and it is to be hoped that it may never appear necessary to recommend such a course. There is enough of the old Reformatory spirit still surviving to ensure any suggestion that is really sound being adopted without any action that might seem to encroach on the voluntary principle which has worked so well.

Of all the Scottish Reformatories for boys there is not one that appears to advantage in the return. The percentage of re-convictions varies from 13 (Stranraer) to 30 (Parkhead). This may to some extent be accounted for by the fact that the schools only receive a residuum, and accordingly have a more difficult task than in England. At best, however, this is only a surmise, based on the apparent reluctance of the Local Authorities to patronise Reformatories. The figures in Appendix III., page 52, certainly indicate that there is a greater number of previous convictions in the Scottish cases, but on the other hand the average age on admission is less than in England. In any case there is a vast amount of room for improvement; the 23 per cent. of re-convictions in the case of Rossie or the 18 per cent. in the case of Wellington, or even the 14 per cent. in the case of Kibble cannot be accepted as satisfactory. There would

indeed, seem to be more urgent need for the application of a remedy in Scotland than in England, for undoubtedly the disease is more acute. The two girls' Reformatories of Scotland both show the same percentage (67) in regular employment, and in both cases the percentage of unknown is unduly high. In one case there has been a recent change of superintendent, while in the other a change took place at the end of 1904. Of all the girl's Reformatories the only one which shows a serious percentage (9 per cent.) of re-convictions is the Mount Vernon Green Reformatory at Liverpool. Here, too, there has quite recently been a change of superintendent, and it may be hoped that the same improvement may be effected in the results of this school as has been done in the case of Toxteth Park, the other Liverpool school, which ten years ago had 8 per cent. of re-convictions, but now, under a new superintendent, shows a clean sheet.

It is gratifying to see Red Lodge and Dalry showing a clean record as regards re-convictions, and Sunderland and Arno's Court as regards "unknowns." The success of the Sunderland school is all the more creditable in that it has so often come to the assistance of the Department in receiving difficult cases on transfer from other schools. Among the Industrial Schools an unduly large proportion of unknowns is shown by Ilford, Northumberland V. H. and St. Joseph's Tranent. All three of these schools have experienced a change of superintendent within the last two or three years, and better results may be looked for in the near future. Other schools with too many unknowns, and for whom there is no apparent excuse, are Essex and the National Nautical School at Portishead.

Each year sees a steady increase in the number of young emigrants, which has advanced from 362 for the three years 1900–2 to 619 for 1903–5, the years to which the present returns relate. 501 were sent out from the Industrial Schools, the majority being from Catholic schools. In the case of the elder children from Reformatories the majority were Protestants.

With regard to the list on page 43 of the present occupations of boys who left the Reformatory and Industrial schools in the years 1903–5 the following remarks may be offered. The numbers in the Army and Navy show a slight decrease as compared with last year's return, being 2,182 as against 2,218. The fall, however, is not so marked as was the case last year, and it may be anticipated that as regards the Army and that gallant service the Royal Marines next year's return will show an advance. Gratifying increases are noted as regards the mercantile marine, carpenters and joiners, farm service (1,514 against 1,332) mechanics and shoemakers, showing that the trades and industries taught in the schools are proving increasingly effective. The number of gardeners remains practically stationary, but it does not follow from this that the gardening taught and practised in the schools is being thrown away, for a knowledge of

Occupations, Boys.

Occupation.		No. at end of 1906.	Occupation.		No. at end of 1906.
Army :—			Labourers :—		
Band	712	1,857	Builders ...	66	
Navy :—			Dock	63	
Royal Marines...	51	325	Factory or mill	217	
Mercantile marine ...		934	General... ...	402	1,056
Bakers		143	Iron works ...	83	
Bricklayers and plasterers (18 masons.)		43	Mechanics ...	158	
			Shipyard ...	67	
Butchers		48	Others in regular employment.		433
Carpenters, joiners, &c. ...		191			
Carters		331	Painters		84
Errand boys		89	Printers		72
Factory or mill :—			On railways		151
Packers and Warehousemen.	34	501	Scholars		43
			Shipbuilding		26
Glassworkers ...	52		Shoemakers		200
Farm		1,514	Shop assistants		237
Fishermen		108	Tailors		148
Gardeners		91	Waiters (Page boys 59) ...		137
Iron and steel workers ...		206	Casual		630
Mechanics		293	Convicted		831
Messengers and porters ...		269	Dead		169
Miners		490	Unknown		602
Ostlers		69			
			Total		12,321

gardening will be found useful not only by the boys in farm service and the other employments where residence in the country is involved, but will act as an incentive to a young fellow to have his own little plot and afford him an occupation and a means of pleasure in his leisure moments. Nor is the value of the instruction imparted in the trade shops fully represented in the table, for the use of the tailor's needle, the shoemaker's implements and the mechanic's tools will be useful wherever the lad may be, and more especially in the Army, where he will be able in all probability to follow his trade, and in any case he will have a trade to go to when he quits the colours. The number of labourers is greater this year by 106, but this is more than balanced by the number shown as being in other regular employment, which is 200 less than in the previous return. The number of re-convictions is 18 less, but, unfortunately, for reasons referred to above, the number returned as unknown is greater by 126. It is interesting to find that several of the boys obtain employment in connection with motor driving. Besides a few in the employ of motor 'bus companies, three are engaged as chauffeurs, one of them by a well-known peer.

Occupations, Girls.

Occupations.		No.	Occupations.	No.
Charing	24	Married	94
Cooks	44	Nursemaids	99
Dairymaids	17	Others in regular employment.	104
Dressmakers	41		
Factory or mill	180	Parlourmaids	28
General servants	1,226	Scholars	46
Housekeepers	18	Shop assistants	17
Housemaids	245	Waitresses	17
Kitchenmaids	107	Casual	138
Ladies' maids	1	Convicted	34
Laundrymaids—		Dead	61
Private 173	219	Unknown	184
Public 46		Total	2,944

The similar list above relating to the girls calls for no very special remark. The great majority of the girls continue to go to domestic service, and the figures under each heading correspond very closely year by year. The number of re-convictions is less by four than in the previous return, 34 against 38, but the number of unknowns is greater by 15, 184 against 169. It is, however, confidently believed that the quality of the successes is steadily improving, and that the schools are continuing to send out an ever-increasing number of girls and young women likely to prove a credit to their sex. Perhaps the most difficult class of school is that of the Girls' Reformatories, and it is no slight consolation to feel that there has been a genuine and well-founded improvement in their management of recent years, and that they never were in a better condition than at the present time. The successful combination of firmness and kindness, so necessary in a boys' school, is even more necessary in a girls' school, and at the same time more difficult to maintain. On the other hand, a patient attention to details and the exercise of due precautions will, with the constant demand for domestic servants and the steady increase in the number of employments open to females, make the successful disposal of the girls a simpler matter than in the case of the boys. Nor is there quite the same amount of opposition on the part of the parents.

Amongst the unclassified employments are included Typists (3), Milliners (3), Hospital Nurses (3).

Parental Contributions.

During 1906 the amount collected from parents, and in Scotland from Parochial Boards, amounted to £29,456*—an

* Including £353 costs recovered and £3 for Remand cases.

increase of £336 on the amount collected in 1905; the numbers in the schools being slightly larger, viz., 20,534 as against 20,454. Thus the collection per head in 1906 came to £1 8*s.* 8*d.* as against £1 8*s.* 6*d.* in 1905—proof that this side of the Department's work is still growing in efficiency. The amount collected per head is the highest yet reached.

When one considers that this large amount of over £29,000 has been collected from what may justly be regarded as the most improvident and least hopeful class of people in the country some idea may be formed as to the difficulty of the task and the merits of the achievement. It has meant the expenditure of an immense amount of trouble, ingenuity, tact, consideration and firmness on the part of the police all over England and in a few parts of Scotland. It has meant the exhibition of like qualities on the part of the department's agencies in both countries, and more especially, as regards the provinces, in Glasgow. It has meant much correspondence, book-keeping, and intelligent supervision on the part of the office staff in Great Scotland Yard, and a display of zeal and marked intelligence and tact in the Metropolitan district, where, as regards both the indoor and outdoor staff, the department was never better served than at the present time. Much of the money has been obtained with great difficulty from the worthless and neglectful who would fain shirk their responsibility and waste their money on drink. On the other hand much of it has been paid regularly in weekly, fortnightly, or monthly instalments in grateful acknowledgement of value received. All the parents are not bad, and a much larger proportion of them are naturally well meaning than in our haste we are apt to believe. The experience of the Department indeed goes to show that while a certain proportion of the parents are ready to resort to every kind of trick, there are a considerable number who display a surprising amount of reasonableness when tackled properly. That they do not as a rule resent being fairly got the better of is shown by the fact that they are often most amenable to advice from those schools which have been most helpful to the Department in bringing them to book. Nothing but good can accrue from a closer understanding between the schools and the parents for the benefit of the children.

The thanks of the Department are due to the police all over the country, and more especially this year to the Chief Constables of Liverpool and Birmingham, for most able and willing assistance, without which it would be impossible to carry on the work with any hope of success; and also to the schools for their timely and helpful co-operation.

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* As regards the collection for Day Industrial Schools, which is in the hands of Education Authorities, and, in Glasgow, of the Juvenile Delinquency Board, £3,201 was realised in 1906 on 3,284 cases—a slight improvement on the results for 1905, but still giving an average of less than £1 a head.

In conclusion, I would express my own personal acknowledgments to the other agents and to all my colleagues on the Inspectorate and in the office for their zealous co-operation in striving to maintain and, wherever possible, to improve the efficiency of the Department.

I am, &c.,

T. D. ROBERTSON.

APPENDIX No. III. (A. AND B.)

REFORMATORY SCHOOLS.

RETURN OF NUMBER OF INMATES, ADMISSIONS, DISCHARGES, &c., for the Year ending December 31, 1906.

Reformatory Schools.

APPENDIX No. III. (A. AND B.)]

REFORMATORY SCHOOLS.—RETURN of NUMBER of INMATES, ADMIS-

SCHOOL.	Total Number under Detention 31st December, 1905.	ADMISSIONS IN 1906.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted.	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND.															
BOYS.															
Bedford	74	1	2	4	19	10	11	3	2	—	1	27	77	5	—
Bradwall	77	—	4	12	14	9	11	6	3	1	—	30	70	4	4
Devon	69	—	1	6	7	5	5	1	2	1	—	14	54	8	1
"Cornwall"	357	—	—	22	90	87	14	8	2	1	1	113	255	1	30
St. John's, Roman Catholic ..	191	—	2	6	24	16	11	4	—	1	—	32	117	5	16
Glamorgan	60	—	4	9	6	2	10	4	2	1	—	19	65	2	—
Hardwicke	115	—	1	5	11	9	7	1	—	—	—	17	98	7	1
Kingswood	148	—	1	12	21	22	8	2	2	—	—	34	136	8	4
Hants	64	—	1	7	7	7	4	1	—	3	—	15	66	2	1
Herts	116	—	—	9	21	13	11	5	1	—	—	30	78	24	—
"Akbar"	293	—	—	21	68	36	29	13	10	1	1	90	209	2	18
Liverpool Farm	194	1	4	24	26	28	14	9	3	1	4	59	153	14	16
Farnworth, Roman Catholic ..	159	—	—	20	38	32	12	8	5	1	—	58	119	—	9
Fylde Farm	127	—	1	16	20	19	11	6	1	—	—	37	113	11	7
Birkdale Farm, Roman Catholic	220	—	1	23	40	27	21	10	3	3	—	64	197	9	16
Monmouth	31	—	1	8	1	1	6	1	2	—	4	14	35	—	—
Northampton	96	1	2	2	18	9	10	2	1	1	—	23	87	8	1
North Eastern	211	—	1	19	40	20	24	10	4	2	—	60	197	13	22
Kerrison	110	—	—	14	18	16	10	3	2	1	1	33	100	8	6
Redhill	284	—	2	11	71	31	38	6	5	4	1	85	294	2	29
Saltley	124	—	—	14	20	7	10	15	1	1	—	34	100	16	11
Warwick	99	—	1	15	20	9	17	5	5	—	—	36	98	5	1
Wilts	111	1	4	11	10	10	10	6	—	—	—	26	100	13	3
Stoke Farm	100	—	—	7	10	10	6	—	—	1	—	17	80	9	6
Calder Farm	124	—	2	14	19	9	14	9	2	1	1	36	110	10	30

APPENDIX No. III. (A. AND B.)

SIONS, DISCHARGES, &c., for the Year ending December 31, 1906.

DISCHARGES IN 1906.											UNDER DETENTION 31ST DECEMBER, 1906.						SCHOOL.
To Friends.		Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School.	On Licence.	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	
Of decent Character.	Of questionable Character.																
																	ENGLAND.
																	BOYS.
4	1	—	—	7	—	—	—	—	—	17	78	6	—	—	—	84	Bedford.
—	—	—	—	1	—	—	1	1	—	11	69	26	—	1	—	96	Bradwall.
1	1	—	—	1	—	—	1	1	1	15	55	13	—	—	—	68	Devon.
3	—	—	34	16	2	—	5	5	2	98	255	113	—	4	—	372	"Cornwall."
16	—	5	1	18	—	—	—	—	3	64	120	34	—	5	—	159	St. John's, Roman Catholic.
9	—	—	—	—	—	—	—	—	—	11	65	3	—	—	—	68	Glamorgan.
13	—	—	1	—	—	—	—	—	—	22	95	11	—	3	1	110	Hardwicke.
21	—	1	1	6	—	—	—	—	1	42	134	3	—	2	1	140	Kingswood.
14	—	—	—	8	—	—	—	—	—	25	53	1	—	—	—	54	Hants.
1	—	—	—	—	2	—	—	—	—	27	79	37	—	2	1	119	Herts.
3	—	—	41	—	1	—	4	2	—	71	210	101	—	1	—	312	"Akbar."
4	2	—	1	5	2	—	1	—	—	45	118	59	—	1	—	208	Liverpool Farm.
—	—	—	25	—	—	—	—	—	—	34	120	61	—	2	—	183	Farnworth, Roman Catholic.
11	—	—	—	3	2	—	—	1	—	35	116	8	—	4	1	129	Fylde Farm.
9	—	—	21	1	1	—	—	—	—	57	199	28	—	—	—	227	Birkdale Farm, Roman Catholic.
4	2	—	—	—	—	—	—	—	—	6	38	1	—	—	—	39	Monmouth.
11	1	—	—	—	1	—	—	—	1	23	88	8	—	—	—	96	Northampton.
18	2	6	—	1	—	—	—	1	—	63	202	4	—	2	—	208	North Eastern.
3	—	—	—	12	—	—	—	—	—	29	98	16	—	—	—	114	Kerrison.
6	2	22	—	10	—	—	—	1	1	73	294	—	—	1	1	296	Redhill.
—	—	3	—	1	—	—	—	—	—	31	99	28	—	—	—	127	Saltley.
12	4	3	1	2	—	—	—	—	—	28	100	7	—	—	—	107	Warwick.
7	—	—	1	1	—	—	—	—	—	25	98	14	—	—	—	112	Wilts.
1	—	—	—	—	—	—	—	—	—	16	80	21	—	—	—	101	Stoke Farm.
2	1	—	—	—	—	—	—	—	1	44	110	6	—	—	—	116	Calder Farm.

Reformatory Schools.

APPENDIX No. III. (A. AND B.)

REFORMATORY SCHOOLS.—Return of Number of Inmates, Admissions,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted.	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND—*continued.*															
BOYS—*continued.*															
Castle Howard	110	—	1	12	17	10	8	7	4	1	—	30	97	—	—
Leeds	187	—	1	20	24	18	14	11	1	1	1	46	149	6	26
Market Weighton, Roman Cath.	224	—	5	15	32	17	20	8	1	6	—	52	210	4	—
GIRLS.															
Devon	52	—	—	4	6	10	—	—	—	—	—	10	50	6	—
Sunderland	57	—	—	2	11	8	3	1	1	—	2	15	53	10	—
Arno's Court, Roman Catholic	77	—	—	6	7	9	4	—	—	—	—	13	82	23	1
Red Lodge	46	—	1	4	3	7	1	—	—	—	1	9	44	8	—
Liverpool	85	—	—	12	16	20	7	—	1	—	1	29	79	14	—
Toxteth Park	70	—	—	11	12	17	6	—	—	—	1	24	64	19	—
Lancashire, Roman Catholic ..	76	—	1	8	18	23	3	1	—	—	—	27	68	18	—
Ipswich	42	—	—	5	15	16	3	1	—	—	—	20	43	11	—
SCOTLAND.															
BOYS.															
Wellington Farm	124	—	—	11	17	10	12	3	1	2	—	28	109	8	19
Rossie	79	—	1	9	21	9	14	4	2	2	—	31	72	4	9
Parkhead, Roman Catholic ..	245	1	8	31	29	19	33	11	1	5	1	70	199	9	6
Kibble	142	—	11	12	8	4	11	8	2	6	1	32	119	10	10
Stranraer	115	—	3	8	11	4	11	6	—	1	—	22	90	1	1
GIRLS.															
Dalry	41	—	1	3	12	10	6	—	—	—	—	16	42	8	—
East Chapelton	56	—	—	3	10	11	2	—	—	—	—	13	54	10	1

APPENDIX No. III. (A. AND B.)

Discharges, &c., for the Year ending December 31, 1906—*continued.*

DISCHARGES IN 1906.											UNDER DETENTION 31ST DECEMBER, 1906.						SCHOOL.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School.	On Licence.	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	BOYS—*continued.*
11	7	1	—	4	—	—	2	—	3	28	101	10	1	—	—	112	Castle Howard.
13	—	—	—	4	—	—	1	2	2	54	150	28	—	1	—	179	Leeds.
55	1	—	1	2	—	—	—	1	—	64	200	12	—	—	—	212	Market Weighton, Roman Catholic.
																	GIRLS.
8	—	—	—	—	—	—	1	—	—	15	47	—	—	—	—	47	Devon.
5	—	1	—	—	1	—	—	—	—	17	52	—	—	—	3	55	Sunderland.
—	1	—	—	—	—	—	—	1	—	26	64	—	—	—	—	64	Arno's Court, Roman Catholic.
2	1	1	—	—	—	—	—	—	—	12	41	2	—	—	—	43	Red Lodge.
10	—	2	—	—	3	—	1	—	—	30	79	5	—	—	—	84	Liverpool.
3	—	1	—	—	1	—	1	—	—	25	65	4	—	—	—	69	Toxteth Park.
3	1	—	—	—	—	—	—	—	—	22	73	6	—	2	—	81	Lancashire, Roman Catholic.
4	—	—	—	—	—	—	1	—	—	16	44	2	—	—	—	46	Ipswich.
																	SCOTLAND.
																	BOYS.
2	—	—	—	2	—	—	1	—	1	33	109	8	—	2	—	119	Wellington Farm.
2	—	—	—	4	—	—	1	—	1	21	75	14	—	—	—	89	Rossie.
38	13	—	—	—	1	—	—	2	4	73	200	20	—	12	1	242	Parkhead, Roman Catholic.
—	—	7	—	3	—	—	—	—	1	31	120	22	—	1	—	143	Kibble.
17	—	—	—	4	—	—	—	—	—	23	90	21	—	3	—	114	Stranraer.
																	GIRLS.
4	—	—	—	—	—	—	—	—	—	12	45	—	—	—	—	45	Dalry.
3	—	—	—	—	—	—	1	—	—	15	54	—	—	—	—	54	East Chapelton.

Reformatory Schools.

APPENDIX No. III. (A. AND B.)—ABSTRACT.

REFORMATORY SCHOOLS.—TOTAL NUMBER of INMATES, ADMIS-

—	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND.															
Boys, Protestant	3,261	4	34	294	578	397	302	134	55	22	15	925	2,821	178	217
Boys, Roman Catholic	794	—	8	64	134	92	64	30	9	11	—	206	643	18	41
Girls, Protestant	352	—	1	38	66	78	20	2	2	—	5	107	333	68	—
Girls, Roman Catholic	153	—	1	14	22	32	7	1	—	—	—	40	150	41	1
SCOTLAND.															
Boys, Protestant	460	—	15	40	57	27	48	21	5	11	1	113	390	23	39
Boys, Roman Catholic	245	1	8	31	29	19	33	11	1	5	1	70	199	9	6
Girls, Protestant	97	—	1	6	22	21	8	—	—	—	—	29	96	18	1
Girls, Roman Catholic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total—Boys	4,780	5	65	429	798	535	447	196	70	49	17	1,314	4,053	228	303
Girls	602	—	3	58	110	131	35	3	2	—	5	176	579	127	2

APPENDIX No. III. (A. AND B.)—ABSTRACT.

SIONS, DISCHARGES, &c., for the Year ending December 31, 1906.

DISCHARGES IN 1906.											UNDER DETENTION 31ST DECEMBER, 1906.						
To Friends.																	
Of decent Character.	Of questionable Character	Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School.	On Licence.	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	—
																	ENGLAND.
172	23	36	80	82	10	—	15	14	12	839	2,815	524	1	22	5	3,367	Boys, Protestant.
80	1	5	48	21	1	—	—	1	3	219	639	135	—	7	—	781	Boys, Roman Catholic.
32	1	4	—	—	5	—	4	1	—	115	328	13	—	—	3	344	Girls, Protestant.
3	2	1	—	—	—	—	—	—	—	48	137	6	—	2	—	145	Girls, Roman Catholic.
																	SCOTLAND.
21	—	7	—	13	—	—	2	—	3	108	394	65	—	6	—	465	Boys, Protestant.
38	13	—	—	—	1	—	—	2	4	73	200	29	—	12	1	242	Boys, Roman Catholic.
7	—	—	—	—	—	—	1	—	—	27	99	—	—	—	—	99	Girls, Protestant.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Girls, Roman Catholic.
311	37	48	128	116	12	—	17	17	22	1,239	4,018	753	1	47	6	4,855	Total—Boys.
42	3	5	—	—	5	—	5	1	—	1 0	564	19	—	2	3	588	Girls.

Reformatory Schools.

APPENDIX No. III. (C.)—ABSTRACT.

TOTALS of the NUMBER of YOUNG OFFENDERS ADMITTED into and DISCHARGED from CERTIFIED REFORMATORY SCHOOLS in GREAT BRITAIN, and the MODE of DISCHARGE, up to December 31, 1906.

	ENGLAND.				SCOTLAND.				TOTAL.	
	PROTESTANT.		ROMAN CATHOLIC.		PROTESTANT.		ROMAN CATHOLIC.			
	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.
ADMISSIONS.										
1854	28	1	—	—	—	—	—	—	28	1
1855	164	24	—	—	167	54	—	—	331	78
1856	477	52	192	4	151	49	—	—	820	143
1857	711	100	247	53	143	50	—	—	1,101	203
1858	553	104	119	40	120	48	—	4	792	196
1859	706	155	148	43	129	58	26	17	1,009	273
1860	765	192	146	46	174	50	60	35	1,145	323
1861	869	259	153	45	184	26	82	18	1,288	348
1862	675	150	161	54	186	55	47	26	1,069	285
1863	643	149	105	47	179	51	49	20	976	267
1864	654	148	233	46	179	48	53	22	1,119	264
1865	753	213	263	52	186	57	54	15	1,256	337
1866	816	193	254	67	207	40	50	20	1,327	320
1867	850	201	270	43	181	38	95	28	1,396	310
1868	828	213	256	32	185	51	68	38	1,337	334
1869	863	199	222	58	177	56	95	17	1,357	330
1870	801	196	254	66	174	44	72	21	1,301	327
1871	790	182	248	59	194	59	63	19	1,295	319
1872	831	240	311	63	186	39	75	26	1,403	368
1873	863	204	308	48	170	40	54	31	1,395	323
1874	821	207	306	57	216	35	43	23	1,386	322
1875	773	150	228	56	161	38	44	10	1,206	254
1876	800	186	258	33	166	23	51	33	1,275	275
1877	1,010	230	271	59	178	37	83	28	1,542	354
1878	895	191	300	66	190	31	72	14	1,457	302
1879	828	196	283	62	169	35	72	24	1,352	317
1880	848	185	248	58	217	30	67	32	1,380	305
1881	784	172	248	61	149	27	51	16	1,232	276
1882	935	187	272	55	170	16	61	9	1,438	267
1883	878	202	234	54	157	21	68	14	1,337	291
1884	844	139	221	57	154	22	70	18	1,289	236
1885	824	157	198	34	176	19	62	27	1,260	237
1886	848	146	227	49	132	24	62	18	1,269	237
1887	822	152	209	47	139	23	62	25	1,232	247
1888	870	158	234	41	126	17	59	13	1,289	229
1889	943	156	217	29	110	22	30	15	1,300	222
1890	769	143	183	30	117	15	62	4	1,131	192
1891	721	149	168	29	134	18	49	3	1,072	199
1892	773	85	184	34	129	25	52	—	1,138	144
1893	784	117	255	35	158	42	82	—	1,279	194
1894	857	128	266	44	114	35	64	—	1,301	207
1895	798	120	194	50	108	31	64	—	1,164	201

APPENDIX No. III. (C.)—ABSTRACT—*continued.*

	ENGLAND.				SCOTLAND.				TOTAL.	
	PROTESTANT.		ROMAN CATHOLIC.		PROTESTANT.		ROMAN CATHOLIC.			
	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.
ADMISSIONS—*cont.*										
1896	726	123	180	44	117	30	66	—	1,089	197
1897	814	110	206	49	147	26	69	—	1,236	185
1898	890	93	240	46	177	31	56	—	1,363	170
1899	766	117	227	36	111	24	34	—	1,138	177
1900	903	109	240	40	137	26	76	2	1,356	177
1901	1,038	99	203	52	121	23	93	8	1,455	182
1902	885	108	200	39	99	26	54	—	1,218	173
1903	838	100	191	39	96	19	57	—	1,182	158
1904	821	110	185	39	118	42	47	—	1,171	191
1905	992	89	196	26	140	23	66	—	1,394	138
1906	925	107	206	40	113	29	70	—	1,314	176
TOTAL.. ..	41,643	7,896	11,368	2,394	8,018	1,798	2,961	693	63,990	12,781
DISCHARGES.										
To employment ..	13,587	4,212	2,503	1,307	4,459	875	2,002	395	22,551	6,789
To friends	12,011	2,276	4,265	584	1,671	425	446	221	18,393	3,506
Emigrated	2,903	81	454	69	317	94	10	13	3,684	257
Sent to sea	5,417	—	2,098	—	158	—	15	—	7,688	—
Enlisted	1,286	—	447	—	148	—	—	—	1,881	—
Disease	526	215	138	51	91	39	44	3	799	308
Incorrigible ..	222	90	57	22	20	20	6	4	305	136
Transferred ..	875	334	135	84	216	76	22	27	1,248	521
Died	658	188	310	116	226	48	80	27	1,274	379
Absconded	791	156	180	16	247	122	94	3	1,312	297
TOTAL ..	38,276	7,552	10,587	2,249	7,553	1,699	2,719	693	59,135	12,193
Under detention, Dec. 31, 1906.	3,367	344	781	145	465	99	242	—	4,855	588
In school	2,815	328	639	137	344	99	230	—	4,048	564
On licence	524	13	135	6	65	—	29	—	753	19
In prison	1	—	—	—	—	—	—	—	1	—
Absconded	22	—	7	2	6	—	12	—	47	2
Retained	5	3	—	—	—	—	1	—	6	3

Reformatory Schools.

APPENDIX No. III. (D.)

REFORMATORY SCHOOLS.—RETURN of INMATES who have left on the NUMBER in regular employment, CONVICTED of CRIME, &c.,

	ENGLAND.															
	BOYS.															
NAME OF SCHOOLS:	Bedford.	Bradwall.	Devon and Exeter.	"Cornwall."	St. John's, Roman Catholic (late Boleyn Castle).	Glamorgan.	Hardwicke.	Kingswood.	Hants.	Herts.	"Akbar."	Liverpool Farm.	Farnworth, Roman Catholic (late "Clarence").	Fylde Farm.	Birkdale Farm, Roman Catholic.	Monmouth.
LEFT DURING YEARS 1903, 1904, AND 1905.	Mode of															
To employment— (*a*) Away from friends	33	20	21	23	22	10	14	23	8	76	2	39	1	17	24	4
(*b*) To live with friends	—	34	3	78	47	4	2	21	7	—	40	36	23	40	43	1
To friends— (*a*) Friends of decent character.	16	3	11	24	38	17	16	28	29	4	18	23	3	10	27	9
(*b*) Friends of questionable character, or otherwise undesirable.	5	—	3	1	2	1	2	—	—	1	—	2	—	3	—	2
Emigrated	—	—	2	—	10	—	—	—	—	—	1	2	—	—	—	—
To sea	2	—	—	115	3	—	2	1	5	—	140	20	73	—	57	—
Enlisted	5	3	4	20	45	1	—	26	6	1	—	15	—	13	4	1
Specially discharged ..	2	—	1	3	—	—	1	1	—	2	6	4	—	1	2	—
Absconders, discharged by expiration of sentence or warrant of Secretary of State.	—	2	—	5	5	—	1	2	—	—	4	—	1	—	—	—
TOTAL	63	62	45	269	172	33	38	102	55	84	211	141	101	84	157	17
	Subsequent Character															
Since dead	—	—	1†	4	—	—	—	1	1	—	6	1	2	3	1	—
In regular employment	45	44	31	202	114	24	29	83	47	70	159	118	79	53	137	6
Not in regular employment.	6	2*	3	7	4	3	4*	4	1	7‡	6	11*	7	6*	10§	—
Convicted of crime ..	9	13	6	46	21	4	3	10	6	4	16	10	6	6	4	1
Unknown	3	3	4	10	33	2	2	4	—	3	24	1	7	16	5	10
TOTAL	63	62	45	269	172	33	38	102	55	84	211	141	101	84	157	17
Percentage in regular employment.	71	71	70	76	66	73	76	82	87	83	78	84	80	65	88	35
Percentage reconvicted..	14	21	14	17	12	12	8	10	11	5	8	7	6	7	3	6
Ditto unknown ..	5	5	9	4	19	6	5	4	—	4	12	1	7	20	3	59

NOTE.—The dead include those imbecile; and children discharged by the Secretary of State on
* 1 physically unfit. † 1 imbecile. ‡ 3 physically unfit.

APPENDIX No. III. (D.)

Reformatory Schools.

DISCHARGE or LICENCE for the YEARS 1903, 1904, and 1905, showing since their DISCHARGE or LICENCE to DECEMBER 31, 1906.

ENGLAND.

BOYS.

Northampton.	North-Eastern.	Kerrison.	Redhill.	Saltley.	Warwick.	Wilts.	Stoke Farm.	Calder Farm.	Castle Howard.	Leeds.	Market Weighton, Rom. Catholic.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.	
Discharge.														LEFT DURING YEARS 1903, 1904, AND 1905.
9	22	20	10	32	—	45	46	36	23	27	5	560	52	To employment— (*a*) Away from friends.
13	60	14	124	32	—	7	12	41	6	51	3	626	116	(*b*) To live with friends.
18	53	19	30	5	39	26	14	1	4	30	133	447	201	To friends— (*a*) Friends of decent character.
6	3	—	6	1	3	1	—	—	9	—	8	49	10	(*b*) Friends of questionable character, or otherwise undesirable.
2	5	—	52	12	6	—	—	—	—	—	1	82	11	Emigrated.
—	1	—	—	—	—	—	—	—	—	1	5	287	138	To sea.
—	4	32	10	7	11	4	—	1	28	18	10	210	59	Enlisted.
—	—	2	—	—	—	5	—	1	—	1	—	30	2	Specially discharged.
—	5	—	—	—	—	—	—	—	—	3	—	22	6	Absconders, discharged by expiration of sentence or warrant of Secretary of State.
48	153	87	232	89	59	88	72	80	70	131	165	2,313	595	TOTAL.
and Circumstances.														
1	1	1	1	1	5	4	1	2	—	—	11‖	34†	14‖	Since dead.
37	93	78	185	74	49	60	63	56	44	100	88	1,750	418	In regular employment.
1	12	5	16	2	2	8	1	7*	3*	9*	23*	126¶	44‡	Not in regular employment.
8	28	2	28	11	2	15	7	13	12	18	31	278	62	Convicted of crime.
1	19	1	2	1	1	1	—	2	11	4	12	125	57	Unknown.
48	153	87	232	89	59	88	72	80	70	131	165	2,313	595	TOTAL.
79	61	91	81	84	91	71	89	72	63	76	67	77	72	Percentage in regular employment.
17	18	2	12	12	4	18	10	17	17	14	20	12	11	Percentage reconvicted.
2	12	1	1	1	2	1	—	3	16	3	8	5	10	Ditto unknown.

the ground of physical unfitness for training are included in those in casual employment.

§ 2 physically unfit. ‖ 2 Imbecile. ¶ 10 physically unfit.

Reformatory Schools.

APPENDIX No. III. (D.)

Reformatory Schools.—Return of Inmates who have left on Discharge or Licence for of Crime, &c., since their Discharge

	ENGLAND—*continued.*									
	GIRLS.									
NAME OF SCHOOLS:	Devon and Exeter.	Sunderland.	Arno's Court, Roman Catholic.	Red Lodge.	Liverpool.	Toxteth Park.	Lancashire, Roman Catholic.	Ipswich.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.
LEFT DURING YEARS 1903, 1904, AND 1905.										Mode of
To employment— (*a*) Away from friends	28	19	54	28	37	35	45	30	177	99
(*b*) To live with friends	2	1	—	—	—	—	—	—	3	—
To friends— (*a*) Friends of decent character.	13	10	14	7	24	14	10	2	70	24
(*b*) Friends of questionable character, or otherwise undesirable.	1	2	—	—	1	1	—	—	5	—
Emigrated	—	2	—	1	2	—	—	—	5	—
To sea	—	—	—	—	—	—	—	—	—	—
Enlisted	—	—	—	—	—	—	—	—	—	—
Specially discharged ..	1	1	—	—	7	2	1	—	11	1
Absconders, discharged by expiration of sentence or warrant of Secretary of State.	—	—	—	—	—	—	—	1	1	—
TOTAL	45	35	68	36	71	52	56	33	272	124
										Subsequent Character
Since dead	—	2*	1	2	2*	2	1	—	8‡	2
In regular employment	29	32	63	27	51	41	40	16	196	103
Not in regular employment.	2	—	3	6†	7	5	9†	2	22†	12†
Convicted of crime ..	2	1	1	—	6	—	2	1	10	3
Unknown	12	—	—	1	5	4	4	14	36	4
TOTAL	45	35	68	36	71	52	56	33	272	124
Percentage in regular employment.	64	97	94	79	74	82	73	48	74	84
Percentage reconvicted..	4	3	1	—	9	—	4	3	4	2
Ditto unknown ..	27	—	—	3	7	8	7	42	14	3

NOTE.—The dead include those imbecile, and children discharged by Secretary of State on

* 1 imbecile. † 2 physically unfit ‡ 2 imbecile. § 1 physically unfit.

APPENDIX No. III. (D.)

the Years 1903, 1904, and 1905, showing the Number in regular employment, Convicted or Licence to December 31, 1906—*continued*.

SCOTLAND.										
BOYS.							GIRLS.			
Wellington Farm.	Rosslie.	Parkhead, Roman Catholic.	Kibble.	Stranraer.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.	Dalry.	East Chapelton.	TOTAL PROTESTANT.	—
Discharge.										LEFT DURING YEARS 1903, 1904, AND 1905.
20	9	43	43	38	110	43	26	29	55	To employment— (*a*) Away from friends.
45	32	19	33	16	126	19	—	3	3	(*b*) To live with friends.
6	5	54	—	25	36	54	6	6	12	To friends— (*a*) Friends of decent character.
4	—	20	—	2	6	20	—	2	2	(*b*) Friends of questionable character, or otherwise undesirable.
2	1	—	17	—	20	—	—	—	—	Emigrated.
—	—	8	—	—	—	8	—	—	—	To sea.
1	9	—	17	5	32	—	—	—	—	Enlisted.
3	2	3	—	—	5	3	3	2	5	Specially discharged.
—	1	8	—	1	2	8	—	2	2	Absconders, discharged by expiration of sentence or warrant of Secretary of State.
81	59	155	110	87	337	155	35	44	79	TOTAL.
and Circumstances.										
2	3*	—	—	1	6*	—	2	2*	4*	Since dead.
62	40	91	95	66	263	91	22	28	50	In regular employment.
3†	2§	9	—	6	11‖	9	7¶	9†	16**	Not in regular employment.
14	13	46	15	11	53	46	—	1	1	Convicted of crime.
—	1	9	—	3	4	9	4	4	8	Unknown.
81	59	155	110	87	337	155	35	44	79	TOTAL.
78	71	59	86	77	79	59	67	67	67	Percentage in regular employment.
18	23	30	14	13	16	30	—	2	1	Percentage reconvicted
—	2	6	—	3	1	6	12	10	11	Ditto unknown.

the ground of physical unfitness for training are included in those in casual employment

‖ 3 physically unfit. ¶ 4 physically unfit. ** 6 physically unfit.

Reformatory Schools.

APPENDIX No. III. (D).—ABSTRACT.

—	Total.	To Employment.									
		(a.) Away from Friends.					(b.) To live with Friends.				
		Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND.											
BOYS, PROTESTANT:											
Bedford	63	—	25	3	3	2	—	—	—	—	—
Bradwall	62	—	17	—	2	1	—	22	2	10	—
Devon and Exeter ..	45	—	16	1	3	1	1	2	—	—	—
"Cornwall"	269	—	19	—	3	1	—	65	2	9	2
Glamorgan	33	—	8	—	1	1	—	4	—	—	—
Hardwicke	38	—	12	1	—	1	—	2	—	—	—
Kingswood	102	—	15	1	5	2	—	18	—	3	—
Hants	55	—	8	—	—	—	—	7	—	—	—
Herts	84	—	66	4	3	3	—	—	—	—	—
"Akbar"	211	—	2	—	—	—	1	35	1	1	2
Liverpool Farm ..	141	—	35	3	1	—	—	31	3	2	—
Fylde Farm	84	—	11	1	2	3	1	27	5	—	7
Monmouth	17	—	2	—	1	1	—	1	—	—	—
Northampton ..	48	—	8	—	1	—	—	10	—	3	—
North-Eastern ..	153	—	16	2	2	2	—	38	3	17	2
Kerrison	87	—	19	1	—	—	—	14	—	—	—
Redhill	232	—	7	—	2	1	—	99	10	14	1
Saltley	89	—	23	1	8	—	1	29	1	1	—
Warwick	59	—	—	—	—	—	—	—	—	—	—
Wilts	88	—	35	3	7	—	—	5	1	1	—
Stoke Farm	72	—	42	1	3	—	1	10	—	1	—
Calder Farm	80	1	21	4	8	2	—	34	3	4	—
Castle Howard ..	70	—	13	1	4	5	—	5	—	—	1
Leeds	131	—	18	1	7	1	—	41	5	4	1
TOTAL	2,313	1	438	28	66	27	5	499	36	70	16
BOYS, ROMAN CATHOLIC:											
St. John's	172	—	16	—	1	5	—	24	3	6	14
Farnworth	101	—	1	—	—	—	—	16	4	—	3
Birkdale Farm ..	157	—	21	1	1	1	—	40	2	1	—
Market Weighton ..	165	—	3	—	1	1	—	2	—	1	—
TOTAL ..	595	—	41	1	3	7	—	82	9	8	17

APPENDIX No. III. (D).—ABSTRACT.

To Friends.										—
(a.) Friends of Decent Character.					(b.) Friends of Questionable Character, or Otherwise Undesirable.					
Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	
										ENGLAND.
										BOYS, PROTESTANT:
—	11	2	3	—	—	2	1	2	—	Bedford.
—	2	—	1	—	—	—	—	—	—	Bradwall.
—	8	1	1	1	—	1	—	2	—	Devon and Exeter.
2	9	4	7	2	—	—	—	1	—	"Cornwall."
—	11	2	3	1	—	1	—	—	—	Glamorgan.
—	13	—	3	—	—	—	2	—	—	Hardwicke.
—	24	3	1	—	—	—	—	—	—	Kingswood.
—	23	1	5	—	—	—	—	—	—	Hants.
—	2	1	1	—	—	1	—	—	—	Herts.
1	9	2	3	3	—	—	—	—	—	"Akbar."
1	20	1	1	—	—	1	—	1	—	Liverpool Farm.
1	3	—	1	5	—	3	—	—	—	Fylde Farm.
—	1	—	—	8	—	2	—	—	—	Monmouth.
—	15	—	2	1	1	2	1	2	—	Northampton.
1	30	6	7	9	—	3	—	—	—	North-Eastern.
—	15	3	1	—	—	—	—	—	—	Kerrison.
1	25	2	2	—	—	3	2	1	—	Redhill.
—	5	—	—	—	—	—	—	1	—	Saltley.
4	33	1	1	—	1	2	—	—	—	Warwick.
1	17	4	4	—	—	1	—	—	—	Wilts.
—	11	—	3	—	—	—	—	—	—	Stoke Farm.
—	1	—	—	—	—	—	—	—	—	Calder Farm.
—	—	—	2	2	—	6	1	2	—	Castle Howard.
—	21	3	6	—	—	—	—	—	—	Leeds.
12	309	36	58	32	2	28	7	12	—	TOTAL.
										BOYS, ROMAN CATHOLIC:
—	24	1	6	7	—	1	-	—	1	St. John's.
—	3	—	—			—	—	—	—	Farnworth.
1	20	5	1	—	—	-	—	—	—	Birkdale Farm.
11	69	20	23	10	—	1	2	4	1	Market Weighton.
	116	26	30	17	—	2	2	4	2	TOTAL.

Reformatory Schools.

APPENDIX No. III. (D).—ABSTRACT.

—	Emigrated.					To Sea.				
	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND.										
BOYS, PROTESTANT:										
Bedford	—	—	—	—	—	—	2	—	—	—
Bradwall	—	—	—	—	—	—	—	—	—	—
Devon and Exeter ..	—	1	—	—	1	—	—	—	—	—
"Cornwall"	—	—	—	—	—	1	94	—	18	2
Glamorgan	—	—	—	—	—	—	—	—	—	—
Hardwicke	—	—	—	—	—	—	2	—	—	—
Kingswood	—	—	—	—	—	—	1	—	—	—
Hants	—	—	—	—	—	—	5	—	—	—
Herts	—	—	—	—	—	—	—	—	—	—
"Akbar"	—	1	—	—	—	1	112	3	10	14
Liverpool Farm ..	—	1	—	1	—	—	15	3	2	—
Fylde Farm	—	—	—	—	—	—	—	—	—	—
Monmouth	—	—	—	—	—	—	—	—	—	—
Northampton ..	—	2	—	—	—	—	—	—	—	—
North-Eastern ..	—	2	—	—	3	—	—	—	—	1
Kerrison	—	—	—	—	—	—	—	—	—	—
Redhill..	—	42	2	8	—	—	—	—	—	—
Saltley	—	10	—	1	1	—	—	—	—	—
Warwick	—	6	—	—	—	—	—	—	—	—
Wilts	—	—	—	—	—	—	—	—	—	—
Stoke Farm	—	—	—	—	—	—	—	—	—	—
Calder Farm	—	—	—	—	—	—	—	—	—	—
Castle Howard ..	—	—	—	—	—	—	—	—	—	—
Leeds	—	—	—	—	—	—	1	—	—	—
TOTAL.. ..	—	65	2	10	5	2	232	6	30	17
BOYS, ROMAN CATHOLIC:										
St. John's	—	7	—	2	1	—	2	—	—	1
Farnworth	—	—	—	—	—	2	58	3	6	4
Birkdale Farm ..	—	—	—	—	—	—	52	2	—	3
Market Weighton ..	—	—	—	1	—	—	5	—	—	—
TOTAL ..	—	7	—	3	1	2	117	5	6	8

APPENDIX No. III. (D.)—ABSTRACT.

Enlisted.					Specially Discharged.			—
Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	
								ENGLAND.
								BOYS, PROTESTANT:
—	4	—	—	1	—	1	—	Bedford.
—	3	—	—	—	—	—	—	Bradwall.
—	3	—	—	1	—	—	1	Devon and Exeter.
—	12	1	7	—	1	1	—	"Cornwall.'
—	—	1	—	—	—	—	—	Glamorgan.
—	—	—	—	—	—	—	1	Hardwicke.
—	24	—	1	1	1	—	—	Kingswood.
1	4	—	1	—	—	—	—	Hants.
—	1	—	—	—	—	—	2	Herts.
—	—	—	—	—	3	—	—	"Akbar.'
—	13	—	1	1	—	2	1	Liverpool Farm.
—	9	—	3	1	1	—	—	Fylde Farm.
—	—	—	—	1	—	—	—	Monmouth.
—	—	—	—	—	—	—	—	Northampton
—	3	—	1	—	—	—	—	North-Eastern.
1	28	1	1	1	—	2	—	Kerrison.
—	9	—	1	—	—	—	—	Redhill.
—	7	—	—	—	—	—	—	Saltley.
—	8	1	1	1	—	—	—	Warwick.
—	1	—	2	1	3	1	—	Wilts.
—	—	—	—	—	—	—	—	Stoke Farm.
—	—	—	1	—	1	—	—	Calder Farm.
—	20	1	4	3	—	—	—	Castle Howard.
—	17	—	1	—	—	1	—	Leeds.
2	166	5	25	12	10	8	5	TOTAL.
								BOYS, ROMAN CATHOLIC:
—	38	—	5	2	—	—	—	St. John's.
—	—	—	—	—	—	—	—	Farnworth.
—	4	—	—	—	—		—	Birkdale Farm.
—	8	1	1	—	—	—	—	Market Weighton.
—	50	1	6	2	—	—	—	TOTAL.

Refermatory Schools.

APPENDIX No. III. (D.)—ABSTRACT.

—	Specially Discharged.		Absconders, discharged by Expiration of Sentence or by Warrant of Secretary of State.				
	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND.							
BOYS, PROTESTANT:							
Bedford	1	—	—	—	—	—	—
Bradwall	—	—	—	—	—	—	2
Devon and Exeter ..	—	—	—	—	—	—	—
"Cornwall"	1	—	—	2	—	—	3
Glamorgan	—	—	—	—	—	—	—
Hardwicke	—	—	—	—	—	—	1
Kingswood	—	—	—	1	—	—	1
Hants	—	—	—	—	—	—	—
Herts	—	—	—	—	—	—	—
"Akbar"	2	1	—	—	—	—	4
Liverpool Farm ..	1	—	—	—	—	—	—
Fylde Farm	—	—	—	—	—	—	—
Monmouth	—	—	—	—	—	—	—
Northampton ..	—	—	—	—	—	—	—
North-Eastern ..	—	—	—	1	1	1	2
Kerrison	—	—	—	—	—	—	—
Redhill	—	—	—	—	—	—	—
Saltley	—	—	—	—	—	—	—
Warwick	—	—	—	—	—	—	—
Wilts	1	—	—	—	—	—	—
Stoke Farm	—	—	—	—	—	—	—
Calder Farm	—	—	—	—	—	—	—
Castle Howard ..	—	—	—	—	—	—	—
Leeds	—	—	—	1	—	—	2
TOTAL.. ..	6	1	—	5	1	1	15
BOYS, ROMAN CATHOLIC:							
St. John's	—	—	—	2	—	1	2
Farnworth	—	—	—	1	—	—	—
Birkdale Farm ..	1	1	—	—	—	—	—
Market Weighton ..	—	—	—	—	—	—	—
TOTAL..	1	1	—	3	—	1	2

APPENDIX No. III. (D.)—ABSTRACT.

—	Total.	To Employment.									
		(*a*) Away from Friends.					(*b*) To live with Friends.				
		Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND—*cont.*											
GIRLS, PROTESTANT:											
Devon and Exeter ..	45	—	21	1	—	6	—	1	—	—	1
Sunderland	35	—	19	—	—	—	—	1	—	—	—
Red Lodge	36	2	20	5	—	1	—	—	—	—	—
Liverpool	71	—	32	1	2	2	—	—	—	—	—
Toxteth Park ..	52	1	29	2	—	3	—	—	—	—	—
Ipswich	33	—	16	2	1	11	—	—	—	—	—
TOTAL.. ..	272	3	137	11	3	23	—	2	—	—	1
GIRLS, ROMAN CATHOLIC:											
Arno's Court	68	1	50	2	1	—	—	—	—	—	—
Lancashire	56	1	32	8	2	2	—	—	—	—	—
TOTAL.. ..	124	2	82	10	3	2	—	—	—	—	—
SCOTLAND.											
BOYS, PROTESTANT:											
Wellington Farm ..	81	—	16	2	2	—	1	34	1	9	—
Rossie	59	—	7	—	2	—	1	24	—	7	—
Kibble	110	—	38	—	5	—	—	26	—	7	—
Stranraer	87	—	33	3	2	—	—	11	1	3	1
TOTAL.. ..	337	—	94	5	11	—	2	95	2	26	1
BOYS, ROMAN CATHOLIC:											
Parkhead	155	—	28	—	13	2	—	12	—	7	—
GIRLS, PROTESTANT:											
Dalry	35	—	19	3	—	4	—	—	—	—	—
East Chapelton ..	44	—	19	9	—	1	—	3	—	—	—
TOTAL.. ..	79	—	38	12	—	5	—	3	—	—	—

Reformatory Schools.

APPENDIX No. III. (D.)—ABSTRACT.

—	To Friends.									
	(*a*) Friends of Decent Character.					(*b*) Friends of Questionable Character, or Otherwise Undesirable.				
	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND—*cont.*										
GIRLS, PROTESTANT:										
Devon and Exeter ..	—	7	1	2	3	—	—	—	—	1
Sunderland	1	9	—	—	—	—	1	—	1	—
Red Lodge	—	6	1	—	—	—	—	—	—	—
Liverpool	1	14	4	4	1	—	1	—	—	—
Toxteth Park ..	—	11	2	—	1	—	1	—	—	—
Ipswich	—	—	—	—	2	—	—	—	—	—
TOTAL.. ..	2	47	8	6	7	—	3	—	1	1
GIRLS, ROMAN CATHOLIC:										
Arno's Court	—	13	1	—	—	—	—	—	—	—
Lancashire	—	8	—	—	2	—	—	—	—	—
TOTAL.. ..	—	21	1	—	2	—	—	—	—	—
SCOTLAND.										
BOYS, PROTESTANT:										
Wellington Farm ..	—	6	—	—	—	—	4	—	—	—
Rossie	—	2	1	2	—	—	—	—	—	—
Kibble	—	—	—	—	—	—	—	—	—	—
Stranraer	—	18	2	4	1	—	2	—	—	—
TOTAL.. ..	—	26	3	6	1	—	6	—	—	—
BOYS, ROMAN CATHOLIC:										
Parkhead	—	39	3	10	2	—	5	3	10	2
GIRLS, PROTESTANT:										
Dalry	—	3	3	—	—	—	—	—	—	—
East Chapelton ..	1	2	—	1	2	—	2	—	—	—
TOTAL.. ..	1	5	3	1	2	—	2	—	—	—

APPENDIX No. III. (D.)—ABSTRACT.

Emigrated.					To Sea.					
Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	
										ENGLAND—*cont.*
										GIRLS, PROTESTANT:
—	—	—	—	—	—	—	—	—	—	Devon and Exeter.
—	2	—	—	—	—	—	—	—	—	Sunderland.
—	1	—	—	—	—	—	—	—	—	Red Lodge.
—	1	1	—	—	—	—	—	—	—	Liverpool.
—	—	—	—	—	—	—	—	—	—	Toxteth Park.
—	—	—	—	—	—	—	—	—	—	Ipswich.
—	4	1	—	—	—	—	—	—	—	TOTAL
										GIRLS, ROMAN CATHOLIC:
—	—	—	—	—	—	—	—	—	—	Arno's Court.
—	—	—	—	—	—	—	—	—	—	Lancashire.
—	—	—	—	—	—	—	—	—	—	TOTAL.
										SCOTLAND.
										BOYS, PROTESTANT:
—	2	—	—	—	—	—	—	—	—	Wellington Farm.
—	—	—	—	1	—	—	—	—	—	Rossie.
—	16	—	1	—	—	—	—	—	—	Kibble.
—	—	—	—	—	—	—	—	—	—	Stranraer.
—	18	—	1	1	—	—	—	—	—	TOTAL.
										BOYS, ROMAN CATHOLIC:
—	—	—	—	—	—	4	1	3	—	Parkhead.
										GIRLS, PROTESTANT:
—	—	—	—	—	—	—	—	—	—	Dairy.
—	—	—	—	—	—	—	—	—	—	East Chapelton.
—	—	—	—	—	—	—	—	—	—	TOTAL.

Reformatory Schools.

APPENDIX No. III. (D.)—ABSTRACT.

	Enlisted.					Specially		
	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Since dead.	In regular employment.	Not in regular employment.
ENGLAND—*cont.*								
GIRLS, PROTESTANT:								
Devon and Exeter ..	—	—	—	—	—	—	—	—
Sunderland	—	—	—	—	—	1	-	-
Red Lodge	—	—	—	—	—	—	—	—
Liverpool	—	—	—	—	—	1	3	1
Toxteth Park ..	—	—	—	—	—	1	—	1
Ipswich	—	—	—	—	—	—	—	—
TOTAL.. ..	—	—	—	—	—	3	3	2
GIRLS, ROMAN CATHOLIC:								
Arno's Court	—	—	—	—	—	—	—	—
Lancashire	—	—	—	—	—	—	—	1
TOTAL.. ..	—	—	—	—	—	—	—	1
SCOTLAND.								
BOYS, PROTESTANT:								
Wellington Farm ..	—	—	—	1	—	1	—	—
Rossie	—	6	1	2	—	2	—	—
Kibble	—	15	—	2	—	—	—	—
Stranraer	1	2	—	2	—	—	—	—
TOTAL.. ..	1	23	1	7	—	3	—	—
BOYS, ROMAN CATHOLIC:								
Parkhead	—	—	—	—	—	—	—	1
GIRLS, PROTESTANT:								
Dairy	—	—	—	—	—	2	—	1
East Chapelton ..	—	—	—	—	—	1	—	—
TOTAL.. ..	—	—	—	—	—	3	—	1

APPENDIX No. III. (D.)—ABSTRACT.

Discharged.		Absconders, Discharged by Expiration of Sentence or by Warrant of Secretary of State.					
Convicted of crime.	Unknown	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown	
							ENGLAND—*cont.*
							GIRLS, PROTESTANT:
—	1	—	—	—	—	—	Devon and Exeter.
—	—	—	—	—	—	—	Sunderland.
—	—	—	—	—	—	—	Red Lodge.
—	2	—	—	—	—	—	Liverpool.
—	—	—	—	—	—	—	Toxteth Park.
—	—	—	—	—	—	1	Ipswich.
—	3	—	—	—	—	1	TOTAL.
							GIRLS, ROMAN CATHOLIC:
—	—	—	—	—	—	—	Arno's Court.
—	—	—	—	—	—	—	Lancashire.
—	—	—	—	—	—	—	TOTAL.
							SCOTLAND.
							BOYS, PROTESTANT:
2	—	—	—	—	—	—	Wellington Farm.
—	—	—	1	—	—	—	Rossie.
—	—	—	—	—	—	—	Kibble.
—	—	—	—	—	—	1	Stranraer.
2	—	—	1	—	—	1	TOTAL.
							BOYS, ROMAN CATHOLIC:
1	1	—	3	1	2	2	Parkhead.
							GIRLS, PROTESTANT:
—	—	—	—	—	—	—	Dalry.
—	1	—	2	—	—	—	East Chapelton.
—	1	—	2	—	—	—	TOTAL.

Reformatory Schools.

APPENDIX No. III. (D.)—ABSTRACT.

—	Discharges for Years 1903, 1904, and 1905.		Results to December 31, 1906.				
	How discharged.	Total.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND:			*		*		
Boys, Protestant	To employment— (a) Away from friends ..	560	1	438	28	66	27
	(b) To live with friends ..	626	5	499	36	70	16
	To friends— (a) Friends of decent character.	447	12	309	36	58	32
	(b) Friends of questionable character, or otherwise undesirable.	49	2	28	7	12	—
	Emigrated	82	—	65	2	10	5
	To sea	287	2	232	6	30	17
	Enlisted	210	2	166	5	25	12
	Specially discharged	30	10	8	5	6	1
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	22	—	5	1	1	15
	Total	2,313	34	1,750	126	278	125
Boys, Roman Catholic.	To employment— (a) Away from friends ..	52	—	41	1	3	7
	(b) To live with friends ..	116	—	82	9	8	17
	To friends— (a) Friends of decent character.	201	12	116	26	30	17
	(b) Friends of questionable character, or otherwise undesirable.	10	—	2	2	4	2
	Emigrated	11	—	7	—	3	1
	To sea	138	2	117	5	6	8
	Enlisted	59	—	50	1	6	2
	Specially discharged	2	—	—	—	1	1
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	6	—	3	—	1	2
	Total	595	14	418	44	62	57

* NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment.

APPENDIX No. III. (D.)—ABSTRACT.

—	Discharges for Years 1903, 1904, and 1905.	Results to December 31, 1906.				
	How discharged.	TOTAL.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
ENGLAND—*cont.*			*		*		
GIRLS, PROTESTANT	To employment— (*a*) Away from friends ..	177	3	137	11	3	23
	(*b*) To live with friends ..	3	—	2	—	—	1
	To friends— (*a*) Friends of decent character.	70	2	47	8	6	7
	(*b*) Friends of questionable character, or otherwise undesirable.	5	—	3	—	1	1
	Emigrated	5	—	4	1	—	—
	Specially discharged	11	3	3	2	—	3
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	1	—	—	—	—	1
	TOTAL	272	8	196	22	10	36
GIRLS, ROMAN CATHOLIC.	To employment— (*a*) Away from friends ..	99	2	82	10	3	2
	(*b*) To live with friends ..	—	—	—	—	—	—
	To friends— (*a*) Friends of decent character.	24	—	21	1	—	2
	(*b*) Friends of questionable character, or otherwise undesirable.	—	—	—	—	—	—
	Emigrated	—	—	—	—	—	—
	Specially discharged	1	—	—	1	—	—
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	—	—	—	—	—	—
	TOTAL	124	2	103	12	3	4

* NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment.

Reformatory Schools.

APPENDIX No. III. (D.)—ABSTRACT.

—	Discharges for Years 1903, 1904, and 1905.	Results to December 31, 1906.				
	How discharged.	Total.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown
SCOTLAND:							
BOYS, PROTESTANT	To employment—						
	(*a*) Away from friends ..	110	—	94	5	11	—
	(*b*) To live with friends ..	126	2	95	2	26	1
	To friends—						
	(*a*) Friends of decent character.	36	—	26	3	6	1
	(*b*) Friends of questionable character, or otherwise undesirable.	6	—	6	—	—	—
	Emigrated	20	—	18	—	1	1
	To sea	—	—	—	—	—	—
	Enlisted	32	1	23	1	7	—
	Specially discharged	5	3	—	—	2	—
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	2	—	1	—	—	1
	TOTAL	337	6	263	11	53	4
BOYS, ROMAN CATHOLIC.	To employment—						
	(*a*) Away from friends ..	43	—	28	—	13	2
	(*b*) To live with friends ..	19	—	12	—	7	—
	To friends—						
	(*a*) Friends of decent character.	54	—	39	3	10	2
	(*b*) Friends of questionable character, or otherwise undesirable.	20	—	5	3	10	2
	Emigrated	—	—	—	—	—	—
	To sea	8	—	4	1	3	—
	Enlisted	—	—	—	—	—	—
	Specially discharged	3	—	—	1	1	1
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	8	—	3	1	2	2
	TOTAL	155	—	91	9	46	9

[a] NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment

APPENDIX No. III. (D.)—ABSTRACT.

—	Discharges for Years 1903, 1904, and 1905.		Results to December 31, 1906.				
	How discharged.	TOTAL.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
SCOTLAND—*cont.*							
GIRLS, PROTESTANT	To employment—						
	(*a*) Away from friends ..	55	—	38	12	—	5
	(*b*) To live with friends ..	3	—	3	—	—	—
	To friends—						
	(*a*) Friends of decent character.	12	1	5	3	1	2
	(*b*) Friends of questionable character, or otherwise undesirable.	2	—	2	—	—	—
	Emigrated	—	—	—	—	—	—
	Specially discharged	5	3	—	1	—	1
	Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	2	—	2	—	—	—
	TOTAL	79	4	50	16	1	8

* NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment.

Reformatory Schools.

APPENDIX No. III. (E.)

REFORMATORY SCHOOLS, RETURN of

RECEIPTS AND EXPENDITURE.	ENGLAND—BOYS AND GIRLS.			
	BEDFORDSHIRE.	BRADWALL.	DEVON AND EXETER.	DEVON AND EXETER.
	Boys, 77. Officers, 9.	Boys, 70. Officers, 7.	Boys, 54. Officers, 7.	Girls, 50. Officers, 6.
RECEIPTS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,180 4 0	1,124 9 1	898 6 2	766 18 4
Subscriptions, Legacies, &c.	8 0 0	—	24 2 6	5 5 0
County and Borough Rates	469 3 10	364 16 2	515 11 4	263 8 10
Voluntary Inmates	—	—	—	—
Hire of Labour	67 7 11	—	92 12 9	—
Sundries	14 13 6	40 1 9	—	—
TOTAL RECEIPTS	1,739 9 3	1,529 7 0	1,530 12 9	1,035 12 2
EXPENDITURE.				
Officers' Salaries and Allowances	398 0 1	565 0 4	321 11 7	272 5 2
Food of Inmates	466 6 9	418 11 10	504 5 5	222 18 0
Clothing „	259 12 10	205 12 11	158 7 9	148 0 7
Washing, Fuel, Light, and Furniture.	220 9 4	179 18 2	131 18 1	176 8 8
Repairs, Rates, and Taxes	162 11 0	20 0 4	56 15 9	167 1 5
Printing and Office Expenses	44 17 2	24 17 10	44 19 10	75 7 5
Travelling and Police	18 0 8	9 14 6	11 15 2	11 8 4
Medical Expenses and Funerals	33 13 2	27 11 4	27 11 3	20 19 11
Sundries, Rewards, &c.	51 17 3	45 9 6	28 6 6	77 9 6
Total Ordinary Charges	1,655 8 3	1,496 16 9	1,285 11 4	1,171 19 0
Cost per Head for Maintenance and Management.	21 10 0	21 7 8	23 16 2	23 8 9
Ditto Food	6 1 2	5 19 7	9 6 9	4 9 2
Ditto Clothing	3 7 5	2 18 9	2 18 8	2 19 3
Extra Charges.				
Rent, Interest, &c.	—	25 0 0	2 6 7	—
Rent of Farm Premises	157 10 4	56 5 7	—	—
Disposal, Home	40 0 3	29 12 5	36 16 9	28 0 0
„ Emigration	—	—	—	—
Building, Land, and Capital Account.	—	—	13 17 9	61 5 0
Total Extra Charges	197 10 7	110 18 0	53 1 1	89 5 0
TOTAL EXPENDITURE	1,852 18 10	1,607 14 9	1,338 12 5	1,261 4 0
Industrial Departments.				
Profit	279 3 11	94 18 11	198 2 4	226 17 7
Loss	—	—	—	—

APPENDIX No. III. (E.)

RECEIPTS and EXPENDITURE of, for 1906.

ENGLAND—BOYS AND GIRLS.

SUNDERLAND. Girls, 53. Officers, 7.	"CORNWALL" SHIP. Boys, 255. Officers, 20.	ST. JOHN'S Rom. Cath. Boys, 117. Officers, 12.	GLAMORGAN. Boys, 65. Officers, 6.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
789 11 2	4,221 6 11	1,951 6 5	996 14 1	Treasury Grant.
—	229 10 8	—	—	Subscriptions, Legacies, &c.
277 19 7	1,985 0 11	867 13 3	356 1 1	County and Borough Rates.
—	110 11 0	—	—	Voluntary Inmates.
29 4 2	—	—	174 2 7	Hire of Labour.
7 1 7	108 11 4	34 4 9	193 17 3	Sundries.
1,103 16 6	6,655 0 10	2,853 4 5	1,720 15 0	TOTAL RECEIPTS.
				EXPENDITURE.
285 3 2	2,099 19 7	843 0 4	381 1 5	Officers' Salaries and Allowances.
328 15 11	1,590 12 0	759 6 9	392 3 5	Food of Inmates.
314 10 0	975 17 3	497 19 10	245 7 4	Clothing „
383 11 6	868 11 0	297 14 6	184 16 10	Washing, Fuel, Light, and Furniture.
76 18 10	286 11 7	280 16 9	106 13 5	Repairs, Rates, and Taxes.
42 17 3	254 2 4	44 4 4	130 4 1	Printing and Office Expenses.
29 5 6	99 4 2	9 17 2	9 5 1	Travelling and Police.
24 15 2	483 13 9	59 15 5	17 16 1	Medical Expenses and Funerals.
19 6 2	210 11 8	84 3 7	22 6 2	Sundries, Rewards, &c.
1,505 3 6	6,869 3 4	2,876 18 8	1,489 13 10	Total Ordinary Charges.
28 8 0	26 18 9	24 11 9	22 18 4	Cost per Head for Maintenance and Management.
6 4 1	6 4 9	6 9 10	6 0 8	Ditto Food.
5 18 8	3 16 6	4 5 2	3 15 6	Ditto Clothing.
				Extra Charges.
34 19 4	45 17 1	—	47 7 9	Rent, Interest, &c.
—	—	—	61 19 4	Rent of Farm Premises.
81 0 0	69 1 8	51 17 0	37 10 0	Disposal, Home.
7 0 0	—	18 3 5	—	„ Emigration.
—	20 0 11	900 6 5	75 15 0	Building, Land, and Capital Account.
122 19 4	134 19 8	970 6 10	222 12 1	Total Extra Charges.
1,628 2 10	7,004 3 0	3,847 5 6	1,712 5 11	TOTAL EXPENDITURE.
				Industrial Departments.
611 2 4	38 5 7	—	316 1 3	Profit.
—	—	31 19 0	—	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)

Reformatory Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—Boys and Girls.			
	Hard-wicke. Boys, 98. Officers, 9.	Kings-wood. Boys, 136. Officers, 12.	Arno's Court. Rom. Cath. Girls, 82. Officers, 13.	Red Lodge. Girls, 44. Officers, 5.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,569 19 1	2,108 1 3	1,080 1 2	651 3 10
Subscriptions, Legacies, &c. ..	—	103 8 4	—	—
County and Borough Rates ..	729 11 2	1,250 0 11	419 6 5	353 7 7
Voluntary Inmates	—	—	—	—
Hire of Labour	167 16 3	—	—	—
Sundries	17 11 1	108 0 9	—	175 6 9
Total Receipts	2,484 17 7	3,569 11 3	1,499 7 7	1,179 18 2
Expenditure.				
Officers' Salaries and Allowances	434 18 7	910 10 9	525 0 0	289 19 10
Food of Inmates	503 9 2	695 6 7	701 14 11	274 6 6
Clothing „	366 12 7	438 18 2	168 16 6	113 1 0
Washing, Fuel, Light, and Furniture.	288 12 8	367 14 5	122 14 8	172 8 10
Repairs, Rates, and Taxes	156 19 0	441 14 3	183 11 4	176 11 0
Printing and Office Expenses ..	93 17 3	81 0 6	37 13 10	17 4 4
Travelling and Police	21 8 4	22 9 2	25 0 2	—
Medical Expenses and Funerals ..	22 1 11	61 14 8	52 1 3	29 8 1
Sundries, Rewards, &c.	96 8 6	211 16 5	120 14 11	101 3 2
Total Ordinary Charges ..	1,984 8 0	3,231 4 11	1,937 7 7	1,174 2 9
Cost per Head for Maintenance and Management.	20 5 0	23 15 2	23 12 6	26 13 8
Ditto Food	5 2 9	5 2 3	8 11 2	6 4 8
Ditto Clothing	3 14 10	3 4 7	2 1 2	2 11 5
Extra Charges.				
Rent, Interest, &c.	119 17 10	—	445 0 0	66 10 0
Rent of Farm Premises	142 13 0	—	—	—
Disposal, Home	53 1 2	100 7 9	90 19 3	35 9 8
„ Emigration	—	—	—	12 6 6
Building, Land, and Capital Account.	648 12 0	—	—	—
Total Extra Charges ..	964 4 0	100 7 9	535 19 3	114 6 2
Total Expenditure .	2,948 12 0	3,331 12 8	2,473 6 10	1,288 8 11
Industrial Departments.				
Profit	52 10 4	28 1 8	344 1 8	165 16 5
Loss	—	—	—	—

APPENDIX No. III. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—BOYS AND GIRLS.

HANTS.	HERTS.	"AKBAR" SHIP.	LIVERPOOL FARM.	RECEIPTS AND EXPENDITURE.
Boys, 66. Officers, 6.	Boys, 78. Officers, 9.	Boys, 209. Officers, 17.	Boys, 153. Officers, 17.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
776 1 8	1,337 2 2	3,476 2 10	2,361 0 5	Treasury Grant.
—	—	46 16 6	35 7 0	Subscriptions, Legacies, &c.
567 8 0	509 6 10	1,480 15 6	1,095 19 4	County and Borough Rates.
—	—	—	—	Voluntary Inmates.
0 9 0	568 17 9	—	155 18 7	Hire of Labour.
83 2 8	6 12 0	12 9 5	—	Sundries.
1,427 1 4	2,421 18 9	5,016 4 3	3,648 5 4	TOTAL RECEIPTS
				EXPENDITURE.
411 4 10	447 17 9	1,735 16 6	833 0 11	Officers' Salaries and Allowances
370 7 3	408 2 7	1,133 1 7	774 15 7	Food of Inmates.
245 6 0	229 16 0	470 15 3	375 12 2	Clothing „
164 7 1	156 8 7	366 6 6	378 18 0	Washing, Fuel, Light, and Furniture.
148 15 0	52 1 0	458 12 0	242 15 6	Repairs, Rates, and Taxes.
54 6 6	138 1 4	165 3 7	163 8 5	Printing and Office Expenses.
33 18 10	29 13 0	38 5 9	36 7 4	Travelling and Police.
26 10 7	7 19 7	106 14 5	54 3 11	Medical Expenses and Funerals.
58 17 5	21 7 6	141 7 11	281 13 3	Sundries, Rewards, &c.
1,513 13 6	1,491 7 4	4,616 3 6	3,140 15 1	Total Ordinary Charges.
22 18 8	19 2 5	22 1 9	20 10 7	Cost per Head for Maintenance and Management.
5 12 3	5 4 8	5 8 5	5 1 3	Ditto Food.
3 14 4	2 18 11	2 5 1	2 9 1	Ditto Clothing.
				Extra Charges.
34 0 0	168 1 0	—	155 0 0	Rent, Interest, &c.
43 0 0	12 0 0	—	130 0 0	Rent of Farm Premises.
73 9 6	103 15 4	304 10 0	216 0 0	Disposal, Home.
—	—	—	—	„ Emigration.
—	24 4 9	52 19 9	—	Building, Land, and Capital Account.
150 9 6	308 1 1	357 9 9	501 0 0	Total Extra Charges.
1,664 3 0	1,799 8 5	4,973 13 3	3,641 15 1	TOTAL EXPENDITURE.
				Industrial Departments.
183 12 5	846 15 4	—	—	Profit.
—	—	—	58 16 1	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)

Reformatory Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—Boys and Girls.			
	Liverpool, Girls.	Farnworth. Rom. Cath.	Fylde Farm.	Birkdale Farm. Rom. Cath.
	Girls, 79. Officers, 6.	Boys, 119. Officers, 10.	Boys, 113. Officers, 13.	Boys, 197. Officers, 19.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,234 11 5	2,313 16 8	1,729 3 7	3,029 15 11
Subscriptions, Legacies, &c. ..	42 7 0	—	88 17 0	32 9 3
County and Borough Rates ..	544 16 1	819 4 4	723 19 11	1,324 19 5
Voluntary Inmates	—	—	—	—
Hire of Labour..	—	—	25 14 11	—
Sundries	—	50 9 5	311 11 6	5 13 8
Total Receipts	1,821 14 6	3,183 10 5	2,879 6 11	4,392 18 3
Expenditure.				
Officers' Salaries and Allowances	283 9 11	986 0 9	695 4 4	1,308 0. 6
Food of Inmates	407 15 1	710 0 11	563 7 10	1,029 5 1
Clothing „	159 7 10	297 7 1	350 0 5	658 11 6
Washing, Fuel, Light, and Furniture.	206 17 6	248 17 2	407 11 9	382 16 11
Repairs, Rates, and Taxes	202 0 5	249 9 1	271 2 11	343 2 6
Printing and Office Expenses ..	85 12 0	119 4 0	224 16 0	132 15 3
Travelling and Police	17 9 6	35 3 0	35 5 10	30 8 5
Medical Expenses and Funerals..	37 19 7	26 14 5	34 2 3	78 11 4
Sundries, Rewards, &c.	77 13 5	287 11 10	16 3 5	96 18 9
Total Ordinary Charges ..	1,478 5 3	2,960 8 3	2,597 14 9	4,060 10 3
Cost per Head for Maintenance and Management.	18 14 3	24 17 7	22 19 9	20 12 3
Ditto Food	5 3 3	5 19 4	4 19 9	5 4 6
Ditto Clothing	2 0 4	2 10 0	3 1 11	3 6 10
Extra Charges.				
Rent, Interest, &c.	—	354 15 2	—	150 8 2
Rent of Farm Premises	—	—	—	41 10 10
Disposal, Home	88 0 0	294 12 9	57 12 0	307 13 1
„ Emigration	24 2 6	—	—	—
Building, Land, and Capital Account.	—	819 11 0	109 8 6	195 16 3
Total Extra Charges ..	112 2 6	1,468 18 11	167 0 6	695 8 4
Total Expenditure ..	1,590 7 9	4,429 7 2	2,764 15 3	4,755 18 7
Industrial Departments.				
Profit	137 4 3	—	175 16 3	172 8 4
Loss	—	—	—	—

APPENDIX No. III. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—Boys and Girls.				
Toxteth Park. — Girls, 64. Officers, 6.	Lancashire. Rom. Cath. — Girls, 68. Officers, 10.	Monmouth. — Boys, 35. Officers, 5.	Northampton. — Boys, 87. Officers, 10.	Receipts and Expenditure
£ s. d.	£ s. d.	£ s. d.	£ s. d.	Receipts.
1,029 10 11	992 1 6	494 5 9	1,421 9 3	Treasury Grant.
43 8 0	160 0 0	—	74 0 6	Subscriptions, Legacies, &c.
437 5 11	417 5 1	174 19 7	562 6 8	County and Borough Rates.
—	—	4 2 10	19 10 0	Voluntary Inmates.
—	—	—	162 12 9	Hire of Labour.
—	16 13 4	—	100 5 2	Sundries.
1,510 4 10	1,585 19 11	673 8 2	2,340 4 4	Total Receipts.
				Expenditure.
295 0 5	394 10 0	235 16 7	519 15 4	Officers' Salaries and Allowances.
339 17 0	425 12 6	251 17 8	573 11 6	Food of Inmates.
122 5 7	303 11 4	69 1 3	336 5 4	Clothing „
210 19 4	294 10 5	52 15 9	288 15 2	Washing, Fuel, Light, and Furniture.
103 7 1	90 2 11	24 16 5	84 17 8	Repairs, Rates, and Taxes.
82 3 11	82 4 0	16 0 0	57 16 1	Printing and Office Expenditure.
11 1 11	14 17 3	2 3 9	33 8 11	Travelling and Police.
56 0 0	28 1 11	10 0 11	22 14 6	Medical Expenses and Funerals.
86 13 8	96 3 5	12 13 0	64 12 9	Sundries, Rewards, &c.
1,307 8 11	1,729 13 9	675 5 4	1,981 17 3	Total Ordinary Charges.
20 8 7	25 8 9	19 5 10	22 15 7	Cost per Head for Maintenance and Management.
5 6 2	6 5 2	7 3 11	6 11 10	Ditto Food.
1 18 3	4 9 3	1 19 6	3 17 4	Ditto Clothing.
				Extra Charges.
—	120 12 3	—	50 9 3	Rent, Interest, &c.
—	—	34 9 0	55 13 11	Rent of Farm Premises.
80 0 0	84 12 4	11 13 6	95 2 3	Disposal, Home.
12 4 7	—	—	—	„ Emigration.
301 8 0	—	—	745 17 8	Building, Land, and Capital Account.
393 12 7	205 4 7	46 2 6	947 3 1	Total Extra Charges.
1,701 1 6	1,934 18 4	721 7 10	2,929 0 4	Total Expenditure.
				Industrial Departments.
35 1 11	341 12 4	38 6 8	283 15 1	Profit.
—	—	—	—	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)

Reformatory Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—Boys and Girls.			
	North-Eastern. Boys, 197. Officers, 26.	Kerrison. Boys, 100. Officers, 11.	Ipswich. Girls, 43. Officers, 4.	Redhill. Boys, 294. Officers, 32.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	3,049 13 1	1,583 17 0	650 5 6	4,286 2 5
Subscriptions, Legacies, &c.	50 1 5	—	—	1,810 13 1
County and Borough Rates	876 13 4	200 10 1	286 0 9	2,942 1 3
Voluntary Inmates	51 4 0	—	—	—
Hire of Labour	741 1 2	69 19 5	—	—
Sundries	257 19 11	68 1 4	75 9 8	76 18 7
Total Receipts	5,026 12 11	1,922 7 10	1,011 15 11	9,115 15 4
Expenditure.				
Officers' Salaries and Allowances	1,419 2 2	465 10 0	204 8 9	1,798 5 8
Food of Inmates	1,814 4 7	603 11 7	284 19 6	1,867 3 4
Clothing „	596 4 0	230 10 9	92 18 7	890 10 1
Washing, Fuel, Light, and Furniture.	249 7 9	169 3 9	115 7 7	943 9 0
Repairs, Rates, and Taxes	342 7 8	74 8 4	124 8 9	586 7 2
Printing and Office Expenditure	108 19 5	34 2 10	37 11 8	659 10 5
Travelling and Police	49 3 10	8 10 2	15 19 10	189 9 5
Medical Expenses and Funerals	110 11 11	46 7 6	18 18 1	213 10 11
Sundries, Rewards, &c.	263 0 1	65 5 7	65 2 6	483 12 2
Total Ordinary Charges	4,953 1 5	1,697 10 6	959 15 3	7,631 18 2
Cost per Head for Maintenance and Management.	25 2 10	16 19 6	22 6 5	25 19 2
Ditto Food	9 4 2	6 0 9	6 12 7	6 7 0
Ditto Clothing	3 0 6	2 6 1	2 3 3	3 0 7
Extra Charges.				
Rent, Interest, &c.	—	—	—	—
Rent of Farm Premises	87 1 11	137 16 0	—	16 15 0
Disposal, Home	134 5 1	112 3 7	26 14 11	107 16 9
„ Emigration	22 6 2	—	—	359 14 5
Building, Land, and Capital Account.	—	32 17 4	—	281 4 2
Total Extra Charges	243 13 2	282 16 11	26 14 11	765 10 4
Total Expenditure	5,196 14 7	1,980 7 5	986 10 2	8,397 8 6
Industrial Departments.				
Profit	1,911 5 5	185 11 2	128 7 7	334 19 3
Loss	—	—	—	—

APPENDIX No. III. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—Boys and Girls.			
Saltley.	Warwick-shire.	Wilts.	Receipts and Expenditure.
Boys, 100. Officers, 11.	Boys, 98. Officers, 16.	Boys, 100. Officers, 10.	
£ s. d.	£ s. d.	£ s. d.	Receipts.
1,638 12 2	1,470 12 1	1,598 7 9	Treasury Grant.
34 13 6	102 1 6	—	Subscriptions, Legacies, &c.
525 18 0	466 9 2	665 8 0	County and Borough Rates.
—	—	—	Voluntary Inmates.
—	—	159 4 4	Hire of Labour.
—	66 12 8	5 6 7	Sundries.
2,199 3 8	2,105 15 5	2,428 6 8	Total Receipts.
			Expenditure.
639 12 10	615 11 8	710 17 8	Officers' Salaries and Allowances.
771 11 8	601 6 3	546 2 6	Food of Inmates.
257 9 8	276 18 2	422 4 10	Clothing „
246 2 2	322 12 5	143 6 11	Washing, Fuel, Light, and Furniture.
129 14 8	149 3 1	200 2 2	Repairs, Rates, and Taxes.
111 9 7	130 18 0	77 15 8	Printing and Office Expenditure.
36 18 0	15 1 9	43 17 1	Travelling and Police.
30 13 4	53 5 8	69 1 6	Medical Expenses and Funerals.
135 6 10	70 0 4	86 4 3	Sundries, Rewards, &c.
2,358 18 9	2,239 17 4	2,299 12 7	Total Ordinary Charges.
23 11 9	22 17 1	22 19 11	Cost per Head for Maintenance and Management.
7 14 4	6 2 9	5 9 3	Ditto Food.
2 11 6	2 16 6	4 4 5	Ditto Clothing.
			Extra Charges
—	—	62 11 0	Rent, Interest, &c.
10 4 4	—	38 3 6	Rent of Farm Premises.
78 15 6	127 19 8	64 3 8	Disposal, Home.
30 11 11	28 11 4	—	„ Emigration.
—	—	201 13 0	Building, Land, and Capital Account.
119 11 9	156 11 0	366 11 2	Total Extra Charges.
2,478 10 6	2,396 8 4	2,666 3 9	Total Expenditure.
			Industrial Departments.
312 1 9	529 4 7	393 4 3	Profit.
—	—	—	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)

Reformatory Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—Boys and Girls.		
	Stoke Farm. — Boys, 80. Officers, 11.	Calder Farm. — Boys, 110. Officers, 14.	Castle Howard. — Boys, 97. Officers, 12.
Receipts.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,308 4 5	1,714 2 1	1,499 0 10
Subscriptions, Legacies, &c. ..	50 0 0	120 16 1	131 3 0
County and Borough Rates ..	426 14 10	1,019 15 9	684 0 9
Voluntary Inmates	—	—	—
Hire of Labour	—	236 13 7	181 10 10
Sundries	—	—	43 9 10
Total Receipts	1,784 19 3	3,091 7 6	2,539 5 3
Expenditure.			
Officers' Salaries and Allowances	487 4 2	567 8 8	629 6 4
Food of Inmates	442 13 2	649 3 4	682 6 2
Clothing „	329 12 8	306 7 0	284 4 6
Washing, Fuel, Light, and Furniture.	193 15 4	297 14 3	177 10 2
Repairs, Rates, and Taxes	35 5 7	82 0 11	171 17 0
Printing and Office Expenditure..	128 17 4	100 8 5	64 0 1
Travelling and Police	36 18 2	48 0 0	24 14 1
Medical Expenses and Funerals..	23 9 5	28 1 6	102 14 7
Sundries, Rewards, &c.	51 13 5	178 12 5	101 11 3
Total Ordinary Charges ..	1,729 9 3	2,257 16 6	2,238 4 2
Cost per Head for Maintenance and Management.	21 12 4	20 10 6	23 1 6
Ditto Food	5 10 8	5 18 0	7 0 8
Ditto Clothing	4 2 5	2 15 8	2 18 7
Extra Charges.			
Rent, Interest, &c.	49 13 4	145 9 11	—
Rent of Farm Premises	339 15 0	165 0 0	130 6 0
Disposal, Home	25 4 6	100 16 7	49 18 5
„ Emigration	—	—	—
Building, Land, and Capital Account.	—	638 1 9	535 4 6
Total Extra Charges ..	414 12 10	1,049 8 3	715 8 11
Total Expenditure ..	2,144 2 1	3,307 4 9	2,953 13 1
Industrial Departments.			
Profit	171 9 10	348 17 8	—
Loss	—	—	357 10 7

APPENDIX No. III. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—Boys and Girls.		SCOTLAND.	
Leeds.	Market Weighton. Rom. Cath.	Dalry.	Receipts and Expenditure
Boys, 149. Officers, 16.	Boys, 210. Officers, 29.	Girls, 42. Officers, 5.	
£ s. d.	£ s. d.	£ s. d.	Receipts.
2,382 11 6	3,185 14 11	605 13 4	Treasury Grant.
75 10 6	224 13 10	—	Subscriptions, Legacies, &c.
959 16 1	1,081 0 8	183 19 8	County and Borough Rates.
—	—	10 0 0	Voluntary Inmates.
183 8 6	—	—	Hire of Labour.
35 10 6	—	77 3 11	Sundries.
3,636 17 1	4,491 9 5	876 16 11	Total Receipts.
			Expenditure.
902 3 2	1,384 5 8	248 1 0	Officers' Salaries and Allowances.
856 11 10	1,256 4 5	231 4 4	Food of Inmates.
555 10 9	757 3 7	88 14 7	Clothing „
447 13 7	304 14 7	90 16 4	Washing, Fuel, Light, and Furniture.
135 14 11	585 9 7	67 10 1	Repairs, Rates, and Taxes.
77 7 4	73 13 7	28 2 11	Printing and Office Expenditure.
49 19 4	27 11 7	17 10 6	Travelling and Police.
35 5 4	43 11 3	23 12 5	Medical Expenses and Funerals.
128 18 10	427 4 10	45 1 3	Sundries, Rewards, &c.
3,189 5 1	4,859 19 1	840 13 5	Total Ordinary Charges.
21 8 1	23 2 10	20 0 4	Cost per Head for Maintenance and Management.
5 15 0	5 19 8	5 10 1	Ditto Food.
3 14 7	3 12 1	2 2 3	Ditto Clothing.
			Extra Charges.
77 14 7	—	—	Rent, Interest, &c.
20 0 0	210 0 0	—	Rent of Farm Premises.
133 5 1	254 11 8	—	Disposal, Home.
—	—	—	„ Emigration.
—	—	—	Building, Land, and Capital Account.
230 19 8	464 11 8	—	Total Extra Charges.
3,420 4 9	5,324 10 9	840 13 5	Total Expenditure.
			Industrial Departments.
137 2 9	736 19 9	136 3 5	Profit.
—	—	—	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)

Reformatory Schools, Return of Receipts

Receipts and Expenditure.	SCOTLAND—Boys and Girls.		
	Wellington Farm.	Rossie.	Glasgow.
	Boys, 109. Officers, 17.	Boys, 72. Officers, 7.	Girls, 54. Officers, 7.
Receipts.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,687 7 3	1,149 18 4	819 0 9
Subscriptions, Legacies, &c ..	76 3 6	—	—
County and Borough Rates ..	668 18 8	459 14 7	613 10 3
Voluntary Inmates	—	—	8 14 0
Hire of Labour	—	122 13 3	—
Sundries	24 0 7	8 14 6	—
Total Receipts	2,456 10 0	1,741 0 8	1,441 5 0
Expenditure			
Officers' Salaries and Allowances	827 19 2	335 0 0	370 18 11
Food of Inmates	505 16 3	519 14 11	349 11 1
Clothing „	360 12 9	214 15 9	85 2 6
Washing, Fuel, Light, and Furniture.	195 9 3	148 0 9	269 14 8
Repairs, Rates, and Taxes	271 0 5	78 16 9	294 10 2
Printing and Office Expenditure..	82 0 10	65 18 8	43 3 0
Travelling and Police	17 16 9	10 18 10	19 13 11
Medical Expenses and Funerals..	53 12 9	18 1 9	36 15 2
Sundries, Rewards, &c.	98 16 9	91 3 6	73 3 0
Total Ordinary Charges ..	2,413 4 11	1,482 10 11	1,542 12 5
Cost per Head for Maintenance and Management.	22 2 10	20 11 10	28 11 4
Ditto Food	4 12 10	7 4 4	6 9 6
Ditto Clothing	3 6 2	2 19 8	1 11 6
Extra Charges.			
Rent, Interest, &c.	—	60 18 2	—
Rent of Farm Premises	7 10 0	96 14 0	—
Disposal, Home	58 15 10	48 17 0	47 11 3
„ Emigration	—	—	—
Building, Land, and Capital Account.	—	—	—
Total Extra Charges ..	66 5 10	206 9 2	47 11 3
Total Expenditure ..	2,479 10 9	1,689 0 1	1,590 3 8
Industrial Departments.			
Profit	102 2 11	24 17 1	139 11 6
Loss	—	—	—

APPENDIX No. III. (E.)

and Expenditure of, for 1906—*continued.*

SCOTLAND—Boys and Girls.			
Parkhead. Rom. Cath.	Kibble.	Stranraer.	Receipts and Expenditure
Boys, 199. Officers, 18.	Boys, 119. Officers, 14.	Boys, 90. Officers, 11.	
£ s. d.	£ s. d.	£ s. d.	Receipts.
3,215 5 4	1,962 2 1	1,450 13 6	Treasury Grant.
—	—	—	Subscriptions, Legacies, &c.
1,148 17 10	953 11 8	673 4 11	County and Borough Rates.
—	—	—	Voluntary Inmates.
—	275 2 6	88 12 1	Hire of Labour.
61 16 10	324 9 7	21 12 2	Sundries.
4,426 0 0	3,515 5 10	2,234 2 8	Total Receipts.
			Expenditure.
1,085 5 1	689 1 0	406 10 0	Officers' Salaries and Allowances.
1,238 15 3	813 4 4	572 13 9	Food of Inmates.
742 9 0	433 19 8	520 11 8	Clothing „
609 19 10	330 13 4	457 3 0	Washing, Fuel, Light, and Furniture.
275 2 7	198 2 1	141 4 5	Repairs, Rates, and Taxes.
84 4 9	134 5 5	53 9 9	Printing and Office Expenditure.
23 0 11	74 3 8	7 19 1	Travelling and Police.
44 11 7	48 6 6	8 4 6	Medical Expenses and Funerals
97 7 8	160 3 5	7 12 6	Sundries, Rewards, &c.
4,200 16 8	2,881 19 5	2,175 8 8	Total Ordinary Charges.
21 2 2	24 4 4	24 3 5	Cost per Head for Maintenance and Management.
6 4 6	6 16 8	6 7 3	Ditto Food.
3 14 7	3 12 11	5 15 8	Ditto Clothing.
			Extra Charges.
100 18 4	—	83 4 3	Rent, Interest, &c.
40 1 0	78 7 0	15 15 0	Rent of Farm Premises.
83 1 11	105 10 0	77 1 0	Disposal, Home.
—	55 19 1	—	„ Emigration.
1,692 15 2	—	—	Building, Land, and Capital Account.
1,916 16 5	239 16 1	176 0 3	Total Extra Charges.
6,117 13 1	3,121 15 6	2,351 8 11	Total Expenditure.
			Industrial Departments.
272 3 8	216 7 7	473 10 10	Profit.
—	—	—	Loss.

Reformatory Schools.

APPENDIX No. III. (E.)—SUMMARY.

REFORMATORY SCHOOLS.—RETURN showing the Expenditure and Cost per Head for the Year 1906.

REFORMATORY SCHOOLS.	Average No. of Inmates.	Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net cost per Head, with these additions or deductions.
ENGLAND.—BOYS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bedfordshire	77	1,655 8 3	—	40 0 3	279 3 11	—	18 7 10
Bradwall	70	1,496 16 9	25 0 0	29 12 5	94 18 11	—	20 16 2
Devon and Exeter ..	54	1,285 11 4	2 6 7	36 16 9	198 2 4	—	20 17 3
"Cornwall"	255	6,869 3 4	45 17 1	69 1 8	38 5 7	—	27 4 9
St. John's, Roman Catholic.	117	2,876 18 8	—	70 0 5	—	31 19 0	25 9 3
Glamorgan	65	1,489 13 10	47 7 9	37 10 0	316 1 3	—	19 7 3
Hardwicke . ..	98	1,984 8 0	119 17 10	53 1 2	52 10 4	—	21 9 7
Kingswood . ..	136	3,231 4 11	—	100 7 9	28 1 8	—	24 5 10
Hants	66	1,513 13 6	34 0 0	73 9 6	183 12 5	—	21 15 7
Herts	78	1,491 7 4	168 1 0	103 15 4	846 15 4	—	11 15 0
"Akbar"	209	4,616 3 6	—	304 10 0	—	—	23 10 11
Liverpool Farm ..	153	3,140 15 1	155 0 0	216 0 0	—	58 16 1	23 6 9
Farnworth, Roman Catholic.	119	2,960 8 3	354 15 2	294 12 9	—	—	30 6 8
Fylde Farm	113	2,597 14 9	—	57 12 0	175 16 3	—	21 18 10
Birkdale Farm, Roman Catholic.	197	4,060 10 3	150 8 2	307 13 1	172 8 4	—	22 1 3
Monmouthshire ..	35	675 5 4	—	11 13 6	38 6 8	—	18 10 8
Northampton ..	87	1,981 17 3	50 9 3	95 2 3	283 15 1	—	21 3 10
North-Eastern ..	197	4,953 1 5	—	156 11 3	1,911 5 5	—	16 4 8
Kerrison	100	1,697 10 6	—	112 3 7	185 11 2	—	16 4 10
Redhill	294	7,631 18 2	—	467 11 2	334 19 3	—	26 8 2
Saltley	100	2,358 18 9	—	109 7 5	312 1 9	—	21 11 3
Warwickshire ..	98	2,239 17 4	—	156 11 0	529 4 7	—	19 1 1
Wiltshire	100	2,299 12 7	62 11 0	64 3 8	392 4 3	—	20 6 10
Stoke Farm	80	1,729 9 3	49 13 4	25 4 6	171 9 10	—	20 8 3
Calder Farm	110	2,257 16 6	145 9 11	100 16 7	348 17 8	—	19 11 10
Castle Howard ..	97	2,238 4 2	—	49 18 5	—	357 10 7	27 5 6
Leeds	149	3,189 5 1	77 14 7	133 5 1	137 2 9	—	21 18 0
Market Weighton, Roman Catholic.	210	4,859 19 1	—	254 11 8	736 19 9	—	20 16 11

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. III. (E.)—SUMMARY—*continued.*

REFORMATORY SCHOOLS.—RETURN showing the Expenditure, &c.—*continued.*

REFORMATORY SCHOOLS.	Average No. of Inmates.	Cost of Maintenance and Management	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net cost per Head, with these additions or deductions.
ENGLAND.—GIRLS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Devon and Exeter ..	50	1,171 19 0	—	28 0 0	296 17 7	—	18 1 3
Sunderland	53	1,506 3 6	34 19 4	88 0 0	611 2 4	—	19 3 9
Arno's Court, R. C. ..	82	1,937 7 7	445 0 0	90 19 3	344 1 8	—	25 19 4
Red Lodge	44	1,174 2 9	66 10 0	47 16 2	165 16 5	—	25 10 3
Liverpool	79	1,478 5 3	—	112 2 6	137 4 3	—	18 7 11
Texteth Park ..	64	1,307 8 11	—	92 4 7	35 1 11	—	21 6 5
Lancashire, R. C. ..	68	1,729 13 9	120 12 3	84 12 4	341 12 4	—	23 8 7
Ipswich	43	959 15 3	—	26 14 11	128 7 7	—	19 19 2
SCOTLAND.—BOYS.							
Wellington Farm ..	109	2,413 4 11	—	58 15 10	102 2 11	—	21 14 10
Rossie	72	1,482 10 11	60 18 2	48 17 0	24 17 1	—	21 15 5
Parkhead, R. C. ..	199	4,200 16 8	100 18 4	83 1 11	272 3 8	—	20 13 4
Kibble	119	2,881 19 5	—	161 9 1	216 7 7	—	23 15 2
Stranraer	90	2,175 8 8	83 4 3	77 1 0	473 10 10	—	20 13 10
SCOTLAND.—GIRLS.							
Dalry	42	840 13 5	—	—	136 3 5	—	16 15 6
Glasgow	54	1,542 12 5	—	47 11 3	139 11 6	—	26 17 3

* Rent of farm premises is dealt with in Industrial Profit or Loss.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—RETURN OF ADMISSIONS,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND.													
BOYS													
"Clio"	230	—	—	—	15	41	—	56	223	—	—	—	—
Chester	88	—	1	3	4	4	—	12	80	—	—	9	9
Birkenhead	93	—	1	6	10	5	—	22	81	—	—	18	—
Stockport	99	—	1	3	7	7	—	18	95	—	—	14	—
Macclesfield	147	—	—	3	7	2	1	13	128	1	—	25	1
Bishop Brown, Roman Cath.	122	1	—	11	7	10	—	29	130	—	—	19	2
"Mount Edgcumbe".. ..	195	—	—	1	7	58	1	67	197	—	—	1	—
Cumberland	146	—	—	2	9	9	—	20	140	—	—	19	3
Chadwick, Roman Catholic	209	—	—	2	18	19	5	44	194	—	—	10	9
Devon and Exeter	68	—	—	4	5	12	—	21	69	—	—	8	8
Dorset	79	—	—	3	4	6	—	13	58	—	—	17	—
Durham	125	—	1	6	19	16	—	42	114	—	—	4	—
Sunderland	106	—	1	7	8	12	—	28	102	—	—	13	10
"Wellesley"	222	—	—	—	8	30	21	59	288	—	—	—	1
Green's Home	32	—	—	6	5	—	—	11	57	—	—	—	—
Gateshead	105	—	—	8	18	24	—	50	111	—	—	3	19
Essex	158	—	2	3	7	11	—	23	143	—	—	29	—
Ilford, Roman Catholic ..	204	—	2	2	12	6	101	123	231	1	—	14	—
Walthamstow, Rom. Cath...	116	—	—	—	—	—	—	—	—	—	—	14	2
Swansea	88	—	—	3	13	10	—	26	65	—	—	5	4
Park Row	69	—	1	7	12	5	—	25	76	1	—	11	—
Clifton	201	—	2	8	15	8	—	33	196	1	—	15	—
National Nautical (late "Formidable.")	281	—	—	3	39	72	1	115	299	—	—	1	—
Purbrook	83	—	1	5	10	5	—	21	81	—	—	13	1
Milton	53	1	—	1	2	—	—	4	151	—	—	2	—

APPENDIX No. IV. (A. AND B.)

DISCHARGES, &c., for the Year ending December 31, 1906.

DISCHARGES IN 1906.											UNDER DETENTION ON 31ST DECEMBER, 1906.						SCHOOL.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded, Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded, Time unexpired.	Retained in School, Sentence expired.	Total.	
																	ENGLAND.
																	BOYS.
14	4	—	51	—	—	2	4	2	—	77	209	—	—	—	—	209	"Clio."
8	—	—	—	—	—	—	—	—	—	28	70	—	—	4	—	74	Chester
10	—	2	1	2	—	—	—	—	—	33	81	—	1	—	—	82	Birkenhead.
6	—	—	—	—	1	—	—	1	—	22	85	—	10	—	—	95	Stockport.
8	—	—	—	3	—	—	—	—	—	37	116	—	7	—	—	123	Macclesfield.
2	—	2	—	—	—	—	—	—	—	25	98	24	4	—	—	126	Bishop Brown, R.C.
14	2	1	32	—	—	—	—	—	—	50	203	—	9	—	—	212	"Mount Edgcumbe."
6	—	—	—	4	—	—	—	—	—	32	129	—	5	—	—	134	Cumberland.
20	—	—	—	4	—	—	14	—	—	57	191	—	5	—	—	196	Chadwick, R.C.
1	—	—	—	1	—	—	—	—	—	18	70	—	1	—	—	71	Devon and Exeter.
—	—	—	—	1	—	—	—	—	—	18	60	—	14	—	—	74	Dorset.
20	—	2	—	4	—	—	—	1	—	31	121	—	15	—	—	136	Durham.
—	—	1	—	—	—	—	1	—	—	25	100	—	9	—	—	109	Sunderland.
6	—	—	62	2	1	—	2	1	—	75	205	—	1	—	—	206	"Wellesley."
—	—	—	—	—	1	—	18	—	—	19	24	—	—	—	—	24	Green's Home.
4	—	—	5	—	—	—	—	1	—	32	122	—	1	—	—	123	Gateshead.
2	—	5	2	1	1	—	—	—	—	40	140	—	1	—	—	141	Essex.
15	1	43	1	8	—	—	1	2	—	85	202	6	33	—	1	242	Ilford, R.C.
—	—	—	—	—	—	1	99	—	—	116	—	—	—	—	—	—	Walthamstow, R.C.
9	3	—	—	—	—	1	—	1	1	24	65	—	25	—	—	90	Swansea.
—	—	1	—	1	—	—	—	1	—	14	79	—	1	—	—	80	Park Row.
7	—	—	—	9	1	—	—	2	—	34	198	—	2	—	—	200	Clifton.
13	3	1	65	1	2	1	—	—	—	87	238	—	1	—	—	289	National Nautical (late "Formidable.")
—	—	1	—	3	—	—	—	—	—	12	83	—	3	—	—	86	Purbrook.
4	—	6	—	1	—	—	—	—	—	13	43	—	—	—	4	47	Milton.

Industrial Schools.

APPENDIX No. IV. (A. AND B)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1884 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
BOYS—*continued.*													
Hereford	112	—	7	13	12	6	—	38	125	—	—	23	1
Church Farm	70	—	—	1	8	4	—	13	84	—	—	9	—
Kent	167	—	4	7	26	26	—	63	182	—	—	3	—
St. Vincent's, Roman Cath...	221	—	—	5	17	9	17	48	199	—	—	22	1
Whitstable, Roman Cath. ..	50	3	6	6	—	2	1	18	51	—	—	—	—
East London	154	—	1	7	16	6	—	30	148	—	—	13	2
Bolton	215	—	2	10	27	14	—	53	200	—	—	34	—
Manchester	174	—	4	10	19	12	1	46	177	—	—	24	1
Barnes' Home	299	3	3	11	21	9	2	49	261	—	—	34	—
St. Joseph's, Roman Cath...	370	1	5	13	24	23	—	66	353	—	—	41	27
Liverpool	222	—	2	10	15	5	2	34	215	—	—	20	—
Grafton Street..	213	5	7	14	12	9	1	48	207	1	—	16	8
St. George's, Roman Cath...	261	—	—	4	26	35	2	67	267	—	—	12	—
St. Anne Street, Rom. Cath.	150	—	2	7	21	21	—	51	147	—	—	12	3
Beacon Lane, Roman Cath.	221	4	16	9	1	—	—	30	198	—	—	16	—
St. Thomas', Roman Catholic	102	2	9	19	19	—	1	50	105	—	—	5	—
Desford	216	—	2	8	19	19	—	48	198	—	—	31	2
Feltham	504	—	—	4	24	69	—	97	546	—	—	51	17
Boys' Home	110	—	4	12	11	3	1	31	135	—	—	6	—
Field Lane	101	—	2	13	20	9	—	44	102	1	—	20	—
Hayes	48	1	1	3	8	7	—	20	56	—	—	—	—
Buxton	67	—	—	2	5	8	—	15	66	—	—	13	2
Newcastle	125	—	—	6	8	2	—	16	120	—	—	5	16
Elswick, Roman Catholic ..	62	—	2	6	4	—	8	20	69	—	—	7	—
Somerset..	193	4	4	6	7	3	5	29	177	—	—	29	—
Cannington, Roman Catholic	98	—	2	3	12	10	1	28	96	—	—	11	

APPENDIX No. IV. (A AND B.)

for the Year ending December 31, 1906—*continued.*

DISCHARGES IN 1906.											UNDER DETENTION ON 31ST DECEMBER, 1906.						
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	SCHOOL.
																	ENGLAND—*continued.*
																	BOYS—*continued.*
—	—	—	—	1	—	—	—	—	—	25	111	—	14	—	—	125	Hereford.
—	—	—	—	—	—	—	—	—	—	9	69	—	5	—	—	74	Church Farm.
12	—	—	2	12	—	1	—	1	—	31	187	—	9	—	3	199	Kent.
2	—	17	—	11	1	—	1	1	—	56	200	—	12	—	1	213	St. Vincent's, R.C.
—	—	—	—	—	1	—	17	—	—	18	50	—	—	—	—	50	Whitstable, R.C.
—	—	—	—	8	—	—	—	—	—	23	150	—	11	—	—	161	East London.
7	—	—	—	8	—	—	—	—	—	49	199	—	19	1	—	219	Bolton.
4	—	—	—	6	—	—	—	—	—	35	179	4	2	—	—	185	Manchester.
4	—	—	5	25	—	—	—	—	—	68	258	—	22	—	—	280	Barnes' Home.
15	1	—	1	7	—	—	—	3	1	96	303	34	1	2	—	340	St. Joseph's, R.C.
10	—	3	1	—	—	—	—	—	—	34	200	14	7	—	1	222	Liverpool.
2	—	2	3	—	—	—	—	2	—	33	196	10	21	—	1	228	Grafton Street.
30	2	3	—	—	—	—	—	1	—	48	275	1	4	—	—	280	St. George's, R.C.
11	2	1	—	3	—	—	—	1	—	33	156	—	12	—	—	168	St. Anne Street, R.C.
8	—	2	—	—	—	—	—	2	—	28	200	8	15	—	—	223	Beacon Lane, R.C.
5	2	4	—	—	—	—	—	—	—	16	126	7	3	—	—	136	St. Thomas', R.C.
13	—	3	—	8	—	—	—	—	—	57	199	—	8	—	—	207	Desford.
—	—	10	29	9	—	—	—	1	—	117	430	2	52	—	—	484	Feltham.
—	—	—	2	8	2	1	—	—	—	19	117	—	5	—	—	122	Boys' Home.
1	—	3	—	6	—	—	—	—	1	31	108	—	6	—	—	114	Field Lane.
—	—	6	—	—	—	2	—	1	—	9	56	—	3	—	—	59	Hayes.
8	—	—	1	—	—	—	—	—	—	24	58	—	—	—	—	58	Buxton.
2	—	—	—	—	—	—	—	—	—	23	115	—	3	—	—	118	Newcastle.
2	—	—	—	—	—	—	4	2	—	15	58	—	9	—	—	67	Elswick, R.C.
4	—	1	—	2	—	—	1	—	—	37	170	—	15	—	—	185	Somerset.
—	—	—	—	8	1	—	1	1	—	26	98	—	2	—	—	100	Cannington, R.C.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
BOYS—*continued.*													
Stafford	125	—	2	11	11	8	—	32	127	1	—	14	6
Standon Bridge	25	1	2	2	1	—	—	6	88	—	—	4	—
Walsham-le-Willows ..	33	—	—	—	3	1	—	4	38	—	—	1	—
Mayford	188	—	12	10	8	2	6	38	177	—	—	15	5
Clapham Park	30	7	1	—	—	6	—	14	30	—	—	—	—
Acre Lane	—	—	—	1	—	1	—	2	—	—	—	—	—
Portslade	117	—	—	—	4	2	—	6	93	—	—	5	—
Shustoke	162	—	1	8	13	21	—	43	136	1	—	37	21
Harborne	153	—	1	4	5	11	—	21	141	—	—	12	6
"Southampton"	168	—	—	3	25	23	—	51	196	—	—	1	9
Leeds	179	—	1	2	26	11	—	40	170	—	—	19	—
York	145	—	—	4	16	13	—	33	120	—	—	25	—
Middlesbrough	68	—	—	3	4	8	—	15	60	—	—	9	1
Shibden, Roman Catholic ..	156	—	1	8	18	12	4	43	148	—	—	8	—
ENGLAND.													
GIRLS.													
Cold Ash	19	—	—	—	—	—	—	—	29	—	—	3	—
Stockport	72	—	1	1	2	7	—	11	65	—	—	11	—
Plymouth	56	1	3	2	3	4	—	13	53	—	—	7	—
Dorset	71	2	2	3	6	1	—	14	75	—	—	7	—
Sunderland	48	—	2	3	8	6	2	21	52	—	—	3	—
Darlington, Roman Catholic	37	—	—	2	—	1	20	23	116	—	—	10	—
Halstead	61	2	5	1	2	2	—	12	60	—	—	9	—
Bristol	64	—	2	1	4	7	—	14	60	—	—	14	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1906—*continued.*

Discharges in 1906.											Under Detention on 31st December, 1906.						School.
To Friends.		Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
Of decent Character.	Of questionable Character.																
																	ENGLAND—*continued.*
																	BOYS—*continued.*
1	—	—	—	6	—	—	—	—	—	27	128	—	2	—	—	130	Stafford.
—	—	—	—	1	—	—	—	—	—	5	23	—	2	—	1	26	Standon Bridge.
3	—	5	—	—	—	—	—	—	—	9	28	—	—	—	—	28	Walsham-le-Willows.
—	—	2	—	3	—	1	—	—	—	26	180	—	20	—	—	200	Mayford.
—	—	—	—	—	—	—	13	—	—	13	31	—	—	—	—	31	Clapham Park.
—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	2	Acre Lane.
4	—	5	1	15	—	—	—	—	—	30	87	—	5	—	1	93	Portslade.
—	—	—	—	3	—	—	—	1	—	62	129	—	12	—	2	143	Shustoke.
20	—	2	—	—	—	—	—	1	—	41	133	—	—	—	—	133	Harborne.
4	1	—	23	9	2	—	—	2	—	51	168	—	—	—	—	168	"Southampton."
12	—	7	—	1	—	—	—	—	—	39	173	—	7	—	—	180	Leeds.
2	—	—	—	—	—	—	—	—	—	27	120	—	31	—	—	151	York.
3	—	—	1	1	1	—	—	—	—	16	60	—	7	—	—	67	Middlesbrough.
8	2	15	—	3	—	—	1	—	—	37	150	5	7	—	—	162	Shibden, R.C.
																	ENGLAND
																	GIRLS.
1	—	—	—	—	—	—	—	—	—	4	15	—	—	—	—	15	Cold Ash.
4	—	—	—	—	—	—	—	—	—	15	63	—	5	—	—	68	Stockport.
1	—	—	—	—	1	—	—	2	—	11	56	—	2	—	—	58	Plymouth.
1	—	—	—	—	—	—	1	—	—	9	75	—	1	—	—	76	Dorset.
5	—	1	—	—	—	—	1	—	—	10	56	—	3	—	—	59	Sunderland.
1	—	—	—	—	—	—	—	—	—	11	48	—	1	—	—	49	Darlington, R.C.
—	—	—	—	—	—	—	—	—	—	9	60	—	4	—	—	64	Halstead.
—	—	—	—	—	1	—	—	—	—	15	60	—	3	—	—	63	Bristol.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
GIRLS—*continued.*													
Carlton House	56	—	1	2	3	—	—	6	57	—	—	4	—
Portsmouth	36	—	1	2	2	2	—	7	35	—	—	5	—
Sale	107	—	5	—	4	4	—	13	99	—	—	17	—
St. Joseph's, Roman Catholic	163	1	2	6	7	4	4	24	158	—	—	15	—
Liverpool	123	1	3	7	9	9	—	29	96	—	—	25	—
Nile Street	89	—	3	2	7	5	—	17	80	—	—	14	—
St. Anne's, Roman Catholic	141	5	4	9	4	8	—	30	144	—	—	8	2
St. Elizabeth's, Roman Cath.	88	1	5	4	9	9	—	28	94	—	—	7	2
Falkner Street, Roman Cath.	28	—	—	—	—	—	—	—	—	—	—	7	1
Blackbrook House, Rom. Ca.	81	3	8	10	4	5	20	50	110	—	—	11	—
Elm House	41	—	—	2	2	1	—	5	39	—	—	4	—
Girls' Home	10	—	—	1	3	5	—	9	27	—	—	3	1
King Edward	102	—	2	5	9	14	—	30	94	—	—	20	—
Gordon House	84	3	—	1	—	4	—	8	70	—	—	12	—
Nazareth House, Rom. Cath.	108	—	2	2	6	9	1	20	105	—	—	15	—
Stamford Hill	—	2	1	—	2	—	7	12	9	1	—	1	—
Newcastle	21	—	—	1	2	1	—	4	23	—	—	2	—
Northumberland	52	—	1	1	2	4	—	8	110	—	—	15	1
Plenmellor	23	—	—	—	1	—	—	1	22	1	—	3	—
Ashburton House, Rom. Cath.	65	—	1	2	2	2	—	7	—	—	—	18	—
Shipton	24	1	1	2	2	6	—	12	34	—	—	5	—
Bath	95	1	1	7	7	10	—	26	81	—	—	18	—
Lichfield	48	—	—	5	4	8	—	17	52	—	—	12	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1906—*continued.*

Discharges in 1906.											Under Detention on 31st December, 1906.					School.
To Friends.		Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
Of decent Character.	Of questionable Character.																
																	ENGLAND—*continued.*
																	GIRLS—*continued.*
—	—	—	—	—	—	—	—	—	—	4	56	—	2	—	—	58	Carlton House.
—	—	—	—	—	—	—	—	—	—	5	36	—	2	—	—	38	Portsmouth.
1	—	—	—	—	—	—	—	1	—	19	99	—	2	—	—	101	Sale.
5	4	—	—	—	—	—	—	—	—	24	157	—	5	1	—	163	St. Joseph's, R.C.
2	—	6	—	—	—	—	—	—	—	33	91	—	28	—	—	119	Liverpool.
—	—	1	—	—	—	—	—	—	—	15	80	—	11	—	—	91	Nile Street.
5	—	1	—	—	1	—	—	2	—	19	147	—	1	2	2	152	St. Anne's, R.C.
1	—	5	—	—	—	—	—	—	—	15	98	—	3	—	—	101	St. Elizabeth's, R.C.
—	—	—	—	—	—	—	20	—	—	28	—	—	—	—	—	—	Falkner Street, R.C.
—	—	1	—	—	—	—	2	1	—	15	112	—	2	—	2	116	Blackbrook House, R.C.
—	—	—	—	—	—	—	1	—	—	5	37	—	4	—	—	41	Elm House.
—	—	—	—	—	—	—	—	—	—	4	14	—	1	—	—	15	Girls' Home.
—	—	—	—	—	—	—	6	—	—	26	96	—	10	—	—	106	King Edward.
—	—	—	—	—	—	—	1			13	72	—	7		—	79	Gordon House.
2	—	—	—	—	—	—	—	—	—	17	108	—	3	—	—	111	Nazareth House, R.C.
1	—	—	—	—	—	1	—	—	—	3	9	—	—	—	—	9	Stamford Hill.
1	—	—	—	—	—	—	—	—	—	3	20	—	2	—	—	22	Newcastle.
3	—	—	—	—	—	—		—	—	19	39	—	2		—	41	Northumberland.
—	—	—	—	—	—	—	—	—	—	3	21	—	—	—	—	21	Plenmellor.
1	—	—	—	—	—	—	52		1	72	—	—	—	—	—	—	Ashburton House, R.C.
1	—	—	—	—	1	—	—	1	—	8	27	—	1	—	—	28	Shipton.
—	—	—	—	—	—	—	1	—	—	19	80	—	22	—	—	102	Bath.
1	—	—	—	—	—	—	—	—	—	13	49	—	3	—	—	52	Lichfield.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1905.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
GIRLS—*continued.*													
Princess Mary's'	138	4	5	10	6	16	—	41	179	—	—	14	—
West Croydon, Roman Cath.	147	3	2	9	9	8	1	32	150	—	—	22	—
Coventry	47	—	—	2	6	3	—	11	47	1	—	8	—
Salisbury, Roman Catholic	69	—	2	3	1	5	1	12	104	—	—	20	1
Hull	48	—	—	1	9	6	—	16	45	—	—	11	—
Thorparch	113	—	—	4	12	9	—	25	98	—	—	13	—
Leeds	67	—	—	1	6	7	—	14	68	—	—	10	—
York	53	—	1	1	6	12	—	20	49	—	—	11	—
Yorkshire, Roman Catholic	71	—	1	2	4	5	28	40	83	—	—	14	—
Beckett Home	26	1	3	—	—	1	—	5	30	—	—	3	—
SCOTLAND.													
BOYS.													
Aberdeen	127	1	2	8	8	6	—	25	123	—	—	18	—
Ayr	107	—	2	8	8	4	—	22	97	—	—	8	—
Kilmarnock	88	—	1	2	7	7	—	17	79	—	—	4	—
"Empress"	389	—	—	—	44	83	—	127	392	—	—	26	—
Dumfries	109	—	—	1	1	3	1	6	100	—	—	6	1
Edinburgh Original	202	2	8	10	18	8	4	50	197	—	—	21	12
Leith	131	1	6	6	9	4	—	26	133	—	—	17	11
Tranent, Roman Catholic ..	191	1	6	13	27	6	—	53	197	—	—	9	—
Arbroath..	29	—	1	1	1	—	—	3	33	—	—	—	1
Dundee	227	—	2	14	20	9	2	47	220	—	—	33	—
"Mars"	398	—	—	—	38	78	—	116	398	—	—	7	17
Mossbank	362	—	9	31	59	32	—	131	364	—	—	30	3

APPENDIX No. IV. (A. AND B.)

or the Year ending December 31, 1906—*continued.*

DISCHARGES IN 1906.											UNDER DETENTION ON 31ST DECEMBER, 1906.						SCHOOL.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	GIRLS—*continued.*
—	—	—	—	—	—	—	—	—	—	14	155	—	10	—	—	165	Princess Mary's.
—	—	—	—	—	—	—	—	—	—	22	149	—	8	—	—	157	West Croydon, R.C.
1	—	—	—	—	—	—	—	1	—	10	46	—	2	—	—	48	Coventry.
—	—	—	—	—	—	1	—	2	—	23	57	—	1	—	—	58	Salisbury, R.C.
2	—	—	—	—	—	—	—	—	—	13	44	—	7	—	—	51	Hull.
2	—	3	—	—	—	1	—	—	—	19	100	—	19	—	--	119	Thorparch.
1	—	1	—	—	—	—	—	—	—	12	28	—	—	—	1	69	Leeds.
1	—	—	—	—	—	1	—	—	1	14	50	—	9	—	—	59	York.
1	—	—	—	—	—	—	—	—	—	15	94	—	2	—	—	96	Yorkshire, R.C.
—	—	—	—	—	—	—	—	—	—	3	25	—	1	—	2	28	Beckett Home.
																	SCOTLAND.
																	BOYS.
5	—	1	—	—	1	—	—	—	—	25	124	—	3	—	—	127	Aberdeen.
12	2	—	1	—	—	—	—	1	—	24	99	—	5	1	—	105	Ayr.
11	—	—	—	—	1	—	—	—	1	17	80	—	6	2	—	88	Kilmarnock.
11	4	2	66	5	2	—	—	1	—	117	394	—	5	—	—	399	"Empress."
9	2	2	—	1	—	—	—	—	—	21	93	—	1	—	—	94	Dumfries.
1	—	—	—	6	1	1	—	—	—	42	197	—	11	--	2	210	Edinburgh Original.
1	—	—	1	—	1	—	—	—	—	31	122	—	2	—	2	126	Leith.
22	—	2	—	—	3	—	1	2	—	39	191	3	10	1	--	205	Tranent, R.C.
1	—	—	—	—	—	—	2	—	—	4	28	—	—	--	—	28	Arbroath.
5	—	—	—	—	1	—	—	—	1	40	198	27	9	—	—	234	Dundee.
38	—	—	47	4	—	—	—	—	1	114	396	—	3	1	--	400	"Mars."
55	1	—	—	4	—	—	—	1	—	94	375	3	21	—	—	399	Mossbank.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.

SCHOOL.	Total Number under Detention 31st December, 1905.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
SCOTLAND—*continued.*													
BOYS—*continued.*													
Glasgow R.C. Orphanage ..	231	—	6	20	17	5	—	48	199	—	—	9	17
Slatefield, Roman Catholic..	174	..	4	13	9	10	—	36	150	—	—	5	10
Perth Fechney	147	—	7	2	7	4	—	20	142	—	—	18	6
Greenock	125	5	11	10	12	6	—	44	130	—	—	8	12
Paisley	123	—	1	5	10	4	—	20	117	—	—	6	2
Stirling	6	—	—	—	—	—	—	—	—	—	—	—	—
SCOTLAND.													
GIRLS.													
Aberdeen Female	53	2	2	3	1	3	12	23	58	—	—	9	—
Aberdeen, Roman Catholic	130	1	11	9	9	9	1	40	130	—	—	14	2
Ayr	56	1	—	5	4	3	4	17	58	—	—	7	2
Kilmarnock	27	—	1	1	3	2	—	7	25	—	—	3	3
Edinburgh Original	70	—	2	3	5	3	—	13	72	—	—	9	—
Leith	65	1	3	4	3	2	—	13	60	—	—	12	—
Dundee	134	1	4	11	3	—	—	19	117	—	—	23	—
Maryhill	201	1	13	7	15	29	—	65	210	—	—	33	—
Glasgow R.C. Orphanage ..	210	—	2	8	16	12	—	38	189	—	—	28	8
Dalbeth, Roman Catholic ..	166	1	7	6	7	6	—	27	149	—	—	24	—
Perth, Ladies	57	—	1	1	2	1	3	8	59	—	—	4	—
Perth, Girls	57	2	—	3	3	1	—	9	58	—	—	9	1
Greenock	42	—	4	6	3	1	—	14	40	—	—	6	—
Paisley	30	1	—	—	—	—	—	1	27	—	—	6	—
Stirling	23	—	1	3	4	2	1	11	26	—	—	5	—
Newton Stewart	57	—	—	—	3	—	—	3	45	—	—	6	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1906—*continued.*

DISCHARGES IN 1906.											UNDER DETENTION ON 31ST DECEMBER, 1906.						SCHOOL.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded.	Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded.	Retained in School. Sentence expired.	Total.	
																		SCOTLAND—*continued.*
																		BOYS—*continued.*
22	—	—	—	—	—	—	—	2	—	50	200	—	27	2	—	229		Glasgow R.C.O.
24	1	—	—	—	—	1	—	—	—	41	150	—	17	2	—	169		Slatefield, R.C.
5	—	—	—	—	3	—	—	1	—	32	135	—	—	—	—	135		Perth Fechney.
8	—	—	—	1	—	—	—	—	—	29	139	—	1	—	—	140		Greenock.
12	3	—	—	2	1	—	—	—	—	26	114	—	1	—	2	117		Paisley.
—	—	—	—	—	—	—	5	—	1	6	—	—	—	—	—	—		Stirling.
																		SCOTLAND.
																		GIRLS.
—	1	—	—	—	—	—	—	—	—	10	63	—	3	—	—	66		Aberdeen Female.
—	—	—	—	—	3	—	—	1	—	20	130	—	20	—	—	150		Aberdeen, Rom. Cath.
—	—	2	—	—	1	1	—	—	—	13	60	—	—	—	—	60		Ayr.
2	—	—	—	—	—	—	—	—	—	8	25	—	1	—	—	26		Kilmarnock.
1	—	—	—	—	—	—	—	—	—	10	70	—	3	—	—	73		Edinburgh Original.
—	—	—	—	—	—	—	—	1	—	13	60	—	5	—	—	65		Leith.
3	—	—	—	—	1	—	—	1	—	27	117	—	7	2	—	126		Dundee.
1	2	11	—	—	1	—	—	1	—	49	200	—	17	—	—	217		Maryhill.
9	—	—	—	—	1	—	—	—	—	46	190	—	11	1	—	202		Glasgow R.C.O.
6	—	2	—	—	2	—	—	1	—	35	150	—	8	—	—	158		Dalbeth R.C.
—	—	—	—	—	1	—	—	—	—	5	60	—	—	—	—	60		Perth, Ladies.
—	—	—	—	—	—	—	—	—	—	10	53	1	2	—	—	56		Perth, Girls.
2	—	—	—	—	—	—	1	2	—	11	40	—	5	—	—	45		Greenock.
5	—	—	—	—	2	—	18	—	—	31	—	—	—	—	—	—		Paisley.
2	—	—	—	—	—	—	—	—	—	7	26	—	1	—	—	27		Stirling.
1	—	—	—	—	—	—	1	—	—	8	44	—	8	—	—	52		Newton Stewart.

Industrial Schools.

APPENDIX No. IV. (A. AND B.)—ABSTRACT.

INDUSTRIAL SCHOOLS.—PARTICULARS of ADMISSIONS and

	Total Number under Detention 31st December, 1905.	ADMISSIONS IN 1906.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1906.	In Auxiliary Home 31st December, 1906.	Not living with Friends.	Living with Friends.
ENGLAND.													
Boys, Protestant	6,986	21	73	264	590	648	42	1,638	7,129	7	—	680	153
Boys, Roman Catholic ..	2,342	11	45	95	179	147	140	617	2,188	1	—	191	48
Girls, Protestant	1,794	16	42	68	127	154	2	409	1,829	3	—	283	2
Girls, Roman Catholic ..	998	13	27	49	46	56	75	266	1,064	—	—	147	6
SCOTLAND.													
Boys, Protestant	2,570	9	50	98	242	248	7	654	2,525	—	—	202	65
Boys, Roman Catholic ..	596	1	16	46	53	21	—	137	546	—	—	23	27
Girls, Protestant	872	9	31	47	49	47	20	203	853	—	—	132	6
Girls, Roman Catholic ..	506	2	20	23	32	27	1	105	468	—	—	66	10
Total—Boys	12,542	43	185	506	1,072	1,071	189	3,066	12,444	8	—	1,096	293
Girls	4,170	42	121	187	256	284	105	995	4,223	4	—	629	24

The figures relating to the Hayes Industrial School for Jewish boys and to the Stamford Hill Industrial but are included in the total number

APPENDIX No. IV. (A. AND B.)—ABSTRACT.

DISCHARGES for the Year ending December 31, 1906.

DISCHARGES IN 1906.											UNDER DETENTION ON 31ST DECEMBER, 1906.						
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	—
																	ENGLAND.
248	13	63	286	165	12	7	39	18	2	1,686	6,499	30	391	5	13	6,938	Boys, Protestant.
118	10	87	2	44	3	1	138	13	1	656	2,107	85	107	2	2	2,303	Boys, Roman Catholic.
28	—	12	—	—	3	2	11	5	1	347	1,690	—	163	—	3	1,856	Girls, Protestant.
16	4	7	—	—	1	—	74	5	1	261	970	—	26	3	4	1,003	Girls, Roman Catholic.
																	SCOTLAND.
174	12	5	115	23	10	1	7	4	4	622	2,494	30	68	4	6	2,602	Boys, Protestant.
68	1	2	—	—	3	1	1	4	—	130	541	3	54	5	—	603	Boys, Roman Catholic.
17	3	13	—	—	5	1	20	5	—	202	818	1	52	2	—	873	Girls, Protestant.
15	—	2	—	—	6	—	—	2	—	101	470	—	39	1	—	510	Girls, Roman Catholic.
608	36	163	403	232	28	12	185	40	7	3,103	11,697	148	623	16	21	12,505	Total—Boys.
77	7	34	—	—	15	4	105	17	2	914	3,957	1	280	6	7	4,251	Girls.

School for Jewish girls (*see* pages 90 and 94) are not included among either Protestants or Roman Catholics, of boys and girls respectively.

Industrial Schools.

APPENDIX No. IV. (C.)—ABSTRACT.

INDUSTRIAL SCHOOLS.—GENERAL RETURN of ADMISSIONS and DISCHARGES up to December 31, 1906.

—	ENGLAND.				SCOTLAND.				TOTAL.	
	Boys Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys.	Girls.
ADMISSIONS.										
To December 31, 1861 ..	210	—	62	86	398	—	252	—	608	400
1862	172	83	45	48	164	3	75	1	422	169
1863	211	69	51	21	182	28	73	14	490	159
1864	213	32	40	20	173	48	63	15	466	138
1865	201	82	76	26	153	36	92	19	562	213
1866	455	88	103	31	227	44	88	19	814	241
1867	843	176	190	169	366	59	157	23	1,444	539
1868	812	334	196	141	492	221	259	111	1,859	707
1869	979	279	185	134	679	89	183	52	2,026	554
1870	1,016	265	240	86	741	67	198	27	2,089	551
1871	1,126	401	269	161	558	72	254	42	2,157	726
1872	1,287	333	281	149	654	71	152	39	2,237	621
1873	1,592	399	288	116	597	96	179	39	2,684	622
1874	1,340	391	302	62	604	77	164	38	2,412	566
1875	1,388	299	254	87	667	74	188	21	2,428	550
1876	1,535	333	283	80	892	90	257	54	2,850	674
1877	1,777	423	436	144	769	111	260	36	3,080	876
1878	1,722	447	329	167	629	87	210	69	2,920	775
1879	1,860	322	302	98	601	96	202	58	3,243	660
1880	1,769	387	313	138	739	91	171	33	3,435	655
1881	1,919	419	330	135	659	98	185	62	3,675	712
1882	2,174	460	422	150	682	84	133	52	4,117	757
1883	2,282	582	517	182	690	91	174	34	4,469	907
1884	1,933	435	512	179	673	73	159	31	3,114	881
1885	1,876	416	467	120	652	90	175	53	3,034	815
1886	1,872	456	553	122	727	103	234	69	3,158	978
1887	1,911	474	466	151	794	78	221	58	3,257	896
1888	2,135	480	566	187	757	67	185	60	3,439	998
1889	2,204	462	465	186	662	141	190	50	3,469	891
1890	2,102	553	474	199	738	136	158	49	3,529	880
1891	2,066	514	451	221	734	80	179	73	3,444	924
1892	1,932	482	375	232	675	106	170	98	3,195	875
1893	1,966	464	439	182	618	122	190	111	3,197	922
1894	1,902	479	453	229	625	86	177	74	3,093	933
1895	1,917	513	429	238	632	118	150	76	3,180	893
1896	2,018	611	485	295	625	143	164	75	3,427	990
1897	2,244	612	488	264	589	179	156	165	3,415	1,002
1898	2,044	544	442	258	776	149	170	90	3,453	946
1899	1,944	530	418	229	694	126	187	84	3,270	918
1900	1,848	549	384	230	615	157	122	69	3,150	812

APPENDIX No. IV. (C.)—ABSTRACT—*continued.*

—	ENGLAND.				SCOTLAND.				TOTAL.	
	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys.	Girls.
ADMISSIONS—*cont.*										
1901	2,017	552	455	215	577	104	139	88	3,294	897
1902	1,864	517	385	180	606	118	172	93	3,126	840
1903	1,689	515	392	147	594	119	185	85	2,935	809
1904	1,719	465	372	214	563	134	146	105	2,890	837
1905	1,786	500	418	174	600	121	184	106	3,019	882
1906	1,638	617	409	266	654	137	203	105	3,066	995
Total	71,438	18,373	15,826	7,101	27,306	4,411	7,990	2,656	121,652	33,585
DISCHARGES.										
To employment or service	25,170	6,867	9,141	3,867	10,313	1,846	4,673	1,275	44,212	18,957
Returned to friends ..	16,671	5,705	2,556	1,057	5,799	1,498	1,298	645	29,675	5,557
Emigrated	1,949	797	325	322	223	20	236	13	3,021	896
Sent to sea	10,901	144	—	—	5,088	13	—	—	16,150	—
Enlisted	3,866	407	—	—	490	6	—	—	4,776	—
Discharged on account of disease.	992	185	282	133	491	31	127	24	1,699	566
Discharged by special order	46	14	14	1	120	61	81	55	241	151
Committed to reformatory schools or prison.	791	348	156	62	336	14	60	1	1,492	280
Transferred	2,385	544	1,038	248	579	44	213	8	3,552	1,507
Died	1,139	640	403	350	805	208	334	111	2,793	1,198
Absconded (Sentence expired).	590	419	55	58	460	67	95	14	1,536	222
Total	64,500	16,070	13,970	6,098	24,704	3,808	7,117	2,146	109,147	29,334
Under detention, Dec. 31, 1906.	6,938	2,303	1,856	1,003	2,602	603	873	510	12,505	4,251
In school	6,499	2,107	1,690	970	2,494	541	818	470	11,697	3,957
In Working Home	30	85	—		33	3	1	—	148	1
On licence	391	107	163	26	68	54	52	39	623	286
Absconded (Sentence unexpired).	5	2	—	3	1	5	2	1	16	7
Retained in school (Sentence expired).	1	2	*	1	6	—	—		21	7

NOTE.—The figures relating to the Hayes Industrial School for Jewish Boys and to the Stamford Hill Industrial School for Jewish Girls (see pages 90 and 94) are not included among either Protestants or Roman Catholics, but are included in the total number of boys and girls respectively.

Industrial Schools.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—RETURN of INMATES who have left on showing the NUMBER IN REGULAR EMPLOYMENT, CONVICTED December 31, 1906.

—	ENGLAND.									
	Cold Ash.	"Clio."	Chester.	Birkenhead.	Stockport.		Macclesfield.	Bishop Brown, Roman Catholic.	"Mount Edgcumbe."	Cumberland County.
	Girls.	Boys.	Boys.	Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.
LEFT DURING THE YEARS 1903, 1904, AND 1905.										
To employment—										
(*a.*) Away from friends ..	14	1	19	33	63	37	62	12	7	45
(*b.*) To live with friends ..	—	—	25	3	1	—	4	11	—	3
To friends—										
(*a.*) Friends of decent character.	2	43	12	10	33	4	14	22	57	37
(*b.*) Friends of questionable character, or otherwise undesirable.	—	16	6	1	—	—	—	3	9	—
Emigrated	—	—	—	6	—	—	—	1	—	—
To sea	—	172	—	7	1	—	2	—	141	3
Enlisted	—	1	—	1	3	—	11	6	11	9
Discharged on account of disease.	—	—	—	—	—	1	1	—	1	—
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	—	—	—	—	—	—
Total	16	233	62	61	101	42	94	55	226	97
Since dead	—	2	1	—	2	1	1†	—	3	2
In regular employment ..	14	199	51	53	83	39	86	46	170	91
Not in regular employment	—	8*	7	4	10*	2	2	4	19?	3*
Convicted of crime	—	11	—	1	5	—	2	1	20	1
Unknown	2	13	3	3	1	—	3	4	14	—
Total	16	233	62	61	101	42	94	55	226	97
Percentage in regular employment.	88	86	84	87	84	95	92	84	76	96
" convicted or reconvicted.	—	5	—	2	5	—	2	2	9	1
" unknown ..	12	6	5	5	1	—	3	7	6	--

* 2 physically unfit. † 1 imbecile.

APPENDIX No. IV. (D.)

DISCHARGE or LICENCE for the Years 1903, 1904, and 1905, OF CRIME, &c., since their DISCHARGE or LICENCE to

ENGLAND—*continued.*

Devon and Exeter.		Plymouth.		Dorset.		Durham County.		"Wellesley."	Gateshead.		Sunderland.	Darlington, Roman Catholic.	—
Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Girls.	Girls.	Girls.	
													LEFT DURING THE YEARS 1903, 1904, AND 1905.
18	27	34	47	5	11	1	12	13	34	53			To employment— (*a.*) Away from friends.
29	—	—	1	—	47	10	44	2	1	3			(*b.*) To live with friends.
1	5	3	—	94	—	8	5	2	7	2			To friends— (*a.*) Friends of decent character.
—	—	—	1	—	—	—	—	—	—	2			(*b.*) Friends of questionable character, or otherwise undesirable.
—	—	—	—	—	2	—	—	1	2	—			Emigrated.
—	—	—	—	—	—	200	—	—	—	—			To sea.
1	—	9	—	15	—	11	—	—	—	—			Enlisted.
—	—	1	—	—	—	2	—	2	3	—			Discharged on account of disease.
—	—	—	—	—	—	—	—	—	—	—			Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
49	32	47	49	114	60	232	61	20	47	60			Total.
—	—	1	—	—	—	4†	—	—	—	—			Since dead.
44	27	39	44	91	52	198	53	19	39	57			In regular employment.
1‡	1	2	—	9	5	7	3	1	5§	1‡			Not in regular employment.
2	—	3	1	7	3	10	4	—	2	—			Convicted of crime.
2	4	2	4	7	—	13	1	—	1	2			Unknown.
49	32	47	49	114	60	232	61	20	47	60			Total.
90	84	85	90	80	87	87	87	95	83	95			Percentage in regular employment.
4	—	7	2	6	5	4	7	—	4	—			„ convicted or re-convicted.
4	12	4	8	6	—	6	2	—	2	3			„ unknown.

‡ 1 physically unfit. § 3 physically unfit.

Industrial Schools.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*									
	Essex.	"Shaftesbury."	Ilford, Roman Catholic.	Halstead.	Swansea.	Park Row.	Clifton.	National Nautical, late "Formidable."	Bristol.	Carlton House.
	Boys.	Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Girls.	Girls.
LEFT DURING THE YEARS 1903, 1904, AND 1905.										
To employment—										
(*a.*) Away from friends ..	82	26	135	26	11	32	57	2	28	28
(*b.*) To live with friends ..	1	6	28	—	8	1	—	40	—	—
To friends—										
(*a.*) Friends of decent character.	5	68	35	—	34	14	38	48	8	2
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	—	7	—	—	8	—	—
Emigrated	9	50	65	1	—	—	—	2	1	—
To sea	13	134	7	—	1	—	3	179	—	—
Enlisted	1	62	16	—	1	—	22	14	—	—
Discharged on account of disease.	—	1	2	—	—	3	—	6	3	—
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	2	1	—	—	—	—	—	—	—
Total	111	349	289	27	62	50	120	299	40	30
Since dead	—	3	4†	1	1	—	1	11	—	—
In regular employment ..	99	301	216	23	54	48	103	195	35	23
Not in regular employment	1	16	26*	3	—	—	6‡	38*	2‡	4‡
Convicted of crime	—	22	7	—	5	1	7	19	—	1
Unknown	11	7	36	—	2	1	3	36	3	2
Total	111	349	289	27	62	50	120	299	40	30
Percentage in regular employment.	89	87	76	88	89	96	87	68	87	77
„ convicted or reconvicted.	—	6	2	—	8	2	6	7	—	3
„ unknown ..	10	2	13	—	3	2	3	12	7	7

* 3 physically unfit. † 1 imbecile.

APPENDIX No. IV. (D.)

for the Years 1903, 1904, and 1905, showing the Number in Regular Employment, or Licence to December 31, 1906—*continued.*

ENGLAND—*continued.*

Purbrook.	Milton.	Portsmouth and South Hants.	Hereford.	Church Farm.	Kent County.	St. Vincent's, Dartford, Roman Catholic.	East London.	Bolton.	—
Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Boys.	Boys.	
									LEFT DURING THE YEARS 1903, 1904, AND 1905.
22	13	10	58	37	28	50	53	61	To employment— (*a.*) Away from friends.
3	9	—	6	1	1	3	16	—	(*b.*) To live with friends.
8	17	—	3	2	75	16	—	29	To friends— (*a.*) Friends of decent character.
—	1	—	—	—	1	5	—	5	(*b.*) Friends of questionable character, or otherwise undesirable.
—	11	—	—	7	—	42	9	—	Emigrated.
—	—	—	—	—	5	2	1	—	To sea.
17	5	—	4	6	41	24	28	26	Enlisted.
—	—	—	1	—	—	1	2	—	Discharged on account of disease.
—	—	—	—	—	—	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
50	56	10	72	53	151	143	109	121	Total.
—	—	—	—	—	2§	3	1†	1	Since dead.
46	48	10	70	50	130	130	99	115	In regular employment.
1	2	—	1	1	8	3	1	2	Not in regular employment.
—	1	—	—	—	9	4	6	2	Convicted of crime.
3	5	—	1	2	2	3	2	1	Unknown.
50	56	10	72	53	151	143	109	121	Total.
92	86	100	97	94	87	93	92	96	Percentage in regular employment.
—	2	—	—	—	6	3	6	2	„ convicted or re-convicted.
6‡	9	—	1	4	1	2	2	1	„ unknown.

‡ 1 physically unfit. § 2 imbecile.

Industrial Schools.]

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*										
	Manchester.		Sale.	Barnes' Home.	St. Joseph's, Roman Catholic.		Liverpool.		Grafton Street.	Nile Street.	St. George's, Roman Catholic.	St. Anne Street, Roman Catholic.
	Boys		Girls	Boys.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.
LEFT DURING THE YEARS 1903, 1904, AND 1905.												
To employment—												
(*a.*) Away from friends ..	72		68	80	97	57	59	77	73	39	33	37
(*b.*) To live with friends ..	2		—	—	81	—	21	1	18	—	6	—
To friends—												
(*a.*) Friends of decent character.	32		4	31	61	19	41	6	12	3	92	34
(*b.*) Friends of questionable character, or otherwise undesirable.	—		—	—	1	2	—	—	—	—	11	9
Emigrated	1		—	1	—	1	5	4	13	4	24	2
To sea	—		—	8	1	—	2	—	—	—	—	12
Enlisted	19		—	56	8	—	—	—	—	—	1	10
Discharged on account of disease.	1		2	—	3	—	1	—	2	2	—	1
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—		—	—	2	—	1	—	—	—	—	1
Total	127		74	176	254	79	130	88	118	48	167	103
Since dead	—		—	1‡	3	2	2‡	1	—	1	2	2
In regular employment ..	116		70	163	213	69	117	82	107	45	149	85
Not in regular employment	7*		3†	4	15†	2*	5	5†	6*	—	11	9†
Convicted of crime	—		—	1	19	1	3	—	2	—	4	2
Unknown..	4		1	7	4	5	3	—	3	2	1	5
Total	127		74	176	254	79	130	88	118	48	167	103
Percentage in regular employment.	91		95	93	85	90	91	94	90	96	90	84
.. convicted or re-convicted.	—		—	1	8	1	2	—	2	—	2	2
. unknown ..	3		1	4	2	6	2	—	3	4	1	5

* 1 physically unfit. † 3 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1903, 1904, and 1905, showing the Number in Regular Employment, or Licence to December 31, 1906—*continued.*

ENGLAND—*continued.*

Beacon Lane, Roman Catholic.		St. Thomas', Roman Catholic.		St. Anne's, Roman Catholic.	St. Elizabeth's, Roman Catholic.		Blackbrook House, Roman Catholic.		Desford.	Feltham.	Boys' Home.	Field Lane.	Hayes.	Elm House.	Girls' Home.	—
Boys.		Boys.		Girls.	Girls.		Girls.		Boys.	Boys.	Boys.	Boys	Boys.	Girls.	Girls.	
																LEFT DURING THE YEARS 1903, 1904, AND 1905.
40		15		39	37		34		54	103	50	57	4	25	9	To employment— (*a.*) Away from friends.
2		—		1	4		1		30	28	14	13	9	—	—	(*b.*) To live with friends.
27		3		13	6		2		15	10	—	3	1	2	2	To friends— (*a.*) Friends of decent character.
—		—		3	—		—		—	—	—	—	—	—	—	(*b.*) Friends of questionable character, or otherwise undesirable.
23		5		15	21		4		5	—	1	—	22	—	—	Emigrated.
—		1		—	—		—		—	39	5	3	3	—	—	To sea.
7		1		—	—		—		20	28	13	10	4	—	—	Enlisted.
—		1		2	—		—		2	—	—	—	—	—	—	Discharged on account of disease.
—		—		—	—		—		..	—	—	—	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
99		26		73	68		41		126	208	83	86	43	27	11	Total.
3		1‡		2	—		1		2	2	1‡	—	1‡	—	—	Since dead.
83		21		60	65		40		108	175	71	73	38	24	10	In regular employment.
4*		2		3†	2*		—		3*	11§	2	6	3*	1	—	Not in regular employment.
1		—		—	—		—		10	12	—	6	—	—	—	Convicted of crime.
8		2		8	1		—		3	8	9	1	1	2	1	Unknown.
99		26		73	68		41		126	208	83	86	43	27	11	Total.
86		84		85	96		100		87	85	87	85	90	89	91	Percentage in regular employment.
1		—		—	—		—		8	6	—	7	—	—	—	,, convicted or reconvicted.
8		8		11	1		—		2	4	11	1	2	7	9	,, unknown.

‡ 1 imbecile. 5 physically unfit

Industrial Schools.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c. since their Discharge

—	ENGLAND—*continued.*											
	King Edward.	Gordon House.	Nazareth House, Roman Catholic.	Buxton.	Newcastle.		Northumberland Village Homes.	Chadwick Memorial, Roman Catholic.	Plenmellor.	Elswick, Roman Catholic.	Shipton-under-Wychwood.	Somerset.
	Girls.	Girls.	Girls.	Boys.	Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.
LEFT DURING THE YEARS 1903, 1904, AND 1905.												
To employment—												
(*a.*) Away from friends ..	79	26	49	34	11	13	31	27	8	12	7	95
(*b.*) To live with friends ..	—	—	—	1	48	—	15	12	—	—	—	2
To friends—												
(*a.*) Friends of decent character.	5	—	1	19	10	4	14	80	1	2	—	5
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	1	2	—	—	3	—	—	—	—
Emigrated	8	—	—	—	—	—	2	—	—	—	3	1
To sea	—	—	—	4	—	—	—	2	—	—	—	—
Enlisted	—	—	—	—	—	—	—	11	—	—	—	8
Discharged on account of disease.	2	1	1	—	3	—	1	1	—	1	—	2
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	1	—	—	—	—	—	—	—	—	—	—	—
Total	95	27	51	59	74	17	63	136	9	15	10	103
Since dead	2	—	—	1	1	—	—	4	—	1	1	2‡
In regular employment ..	72	25	49	53	65	15	47	110	8	10	9	94
Not in regular employment	13†	1	—	4*	5*	—	1	10†	—	2	—	2
Convicted of crime	2	—	—	—	3	—	—	8	—	1	—	1
Unknown	6	1	2	1	—	2	15	4	1	1	—	4
Total	95	27	51	59	74	17	63	136	9	15	10	103
Percentage in regular employment.	77	93	96	91	89	88	75	83	89	71	100	93
„ convicted or reconvicted.	2	—	—	—	4	—	—	6	—	7	—	1
„ unknown ..	6	4	4	2	—	12	24	3	11	7	—	4

* 1 physically unfit. † 3 physically unfit. ‡ 1 imbecile.

APPENDIX No. IV. (D.)

for the Years 1903, 1904, and 1905, showing the Number in Regular Employment, or Licence to December 31, 1906—*continued.*

ENGLAND—*continued.*

Cannington, Roman Catholic.		Bath.		Stafford.		Standon Bridge.	Walsham-le-Willows.	Mayford.	Princess Mary Village Homes.	St. Mary's, West Croydon, Roman Catholic.		Portslade.	Shustoke.	Harborne.		Coventry.	—
Boys.	Girls.			Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	Girls.		Boys.	Boys.	Boys.	Girls.		
																	LEFT DURING THE YEARS 1903, 1904, AND 1905.
29	68			48	29	16	4	56	48	69		11	90	33		15	To employment— (*a.*) Away from friends.
14	—			32	1	—	—	19	—	—		9	23	30		1	(*b.*) To live with friends.
2	2			14	6	5	3	1	5	—		1	—	42		2	To friends— (*a.*) Friends of decent character.
—	—			1	2	—	—	—	—	—		—	—	2		—	(*b.*) Friends of questionable character, or otherwise undesirable.
—	1			4	—	5	4	—	—	—		7	3	—		—	Emigrated.
1	—			—	—	—	—	—	—	—		1	—	—		—	To sea.
20	—			10	—	3	5	23	—	—		40	8	2		—	Enlisted.
—	1			—	—	—	—	2	2	6		1	1	—		—	Discharged on account of disease.
—	—			—	—	—	—	—	—	—		1	—	—		—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
66	72			109	38	29	16	101	55	75		71	125	109		18	Total.
—	3§			1	2‡	—	—	—	—	2		1	3‡	1		—	Since dead.
60	67			96	31	26	15	90	45	72		59	105	83		16	In regular employment.
—	—			6‖	1	—	1	2	7¶	—		6	6	11†		1**	Not in regular employment.
3	1			4	2	1	—	5	—	—		1	3	9		1	Convicted of crime.
3	1			2	2	2	—	4	3	1		4	8	5		—	Unknown.
66	72			109	38	29	16	101	55	75		71	125	109		18	Total.
91	97			89	86	90	94	89	82	99		84	86	77		89	Percentage in regular employment.
5	1			4	6	3	—	5	—	—		1	2	8		6	,, convicted or reconvicted.
5	1			2	6	7	—	4	5	1		6	7	5		—	,, unknown.

§ 3 imbecile. ‖ 4 physically unfit. ¶ 5 Physically unfit.

Industrial Schools.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*											
	Salisbury, Roman Catholic.	Hull.	"Southampton."	Leeds.		Thorparch.	York.		Middlesbrough.	Shibden, Roman Catholic.	Yorkshire, Roman Catholic.	Beckett Home.
	Girls.	Girls.	Boys.	Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Boys.	Girls.	Girls.
LEFT DURING THE YEARS 1903, 1904, AND 1905.												
To employment—												
(*a.*) Away from friends ..	32	29	8	73	33	66	72	38	32	40	56	15
(*b.*) To live with friends ..	—	—	4	—	—	—	—	—	4	—	—	—
To friends—												
(*a.*) Friends of decent character.	1	9	9	28	10	9	6	—	8	20	6	1
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	7	—	1	—	1	—	—	1	1	—
Emigrated	2	—	—	6	7	—	—	—	—	56	1	1
To sea	—	—	106	2	—	—	—	—	—	—	—	—
Enlisted	—	—	38	14	—	—	1	—	4	—	—	—
Discharged on account of disease.	—	1	9	—	1	—	—	1	—	4	—	1
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	—	—	1	—	—	1	—	—
Total	35	39	181	123	52	75	81	39	48	122	64	18
Since dead	—	2	2	2	2‡	—	—	—	—	5‡	1	1
In regular employment ..	32	32	147	109	43	68	75	31	47	106	63	16
Not in regular employment	—	3†	18†	4	4*	2	—	3	—	5*	—	1*
Convicted of crime	—	1	5	7	1	2	2	1	1	2	—	—
Unknown	3	1	9	1	2	3	4	4	—	4	—	—
Total	35	39	181	123	52	75	81	39	48	122	64	18
Percentage in regular employment.	91	86	82	91	86	91	93	79	98	91	100	94
„ convicted or reconvicted.	—	3	3	6	2	3	2	3	2	2	—	—
„ unknown	9	3	5	1	4	4	5	10	—	3	—	—

* 1 physically unfit. † 2 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1903, 1904, and 1905, showing the Number in Regular Employment, or Licence to December 31, 1906—*continued.*

SCOTLAND.

Aberdeen.		Aberdeen Female.	Aberdeen, Roman Catholic.	Ayr.		Kilmarnock.		"Empress."	Dumfries.	Edinburgh, Original.		—
Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	
											LEFT DURING THE YEARS 1903, 1904, AND 1905.
45	25	36	24	29	11	11	6	24	31	34	To employment— (*a.*) Away from friends.
16	—	3	2	—	3	—	18	4	36	—	(*b.*) To live with friends.
26	3	18	32	3	29	3	53	22	13	4	To friends— (*a.*) Friends of decent character.
12	2	1	1	1	2	—	33	5	1	—	(*b.*) Friends of questionable character, or otherwise undesirable.
3	—	—	1	2	—	—	4	2	—	10	Emigrated.
—	—	—	3	—	—	—	215	1	—	—	To sea.
—	—	—	—	—	—	—	7	3	9	—	Enlisted.
1	—	—	1	3	—	—	3	2	—	—	Discharged on account of disease.
—	—	—	—	—	—	—	1	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
103	30	58	64	38	45	14	340	63	90	48	Total.
—	2	—	1	4‡	1	—	5	—	—	—	Since dead.
94	22	55	52	31	41	12	290	47	79	19	In regular employment.
6	3†	—	1	1	1*	2*	16†	5	3*	—	Not in regular employment.
3	—	2	7	—	2	—	20	3	7	—	Convicted of crime.
—	3	1	3	2	—	—	9	8	1	29	Unknown.
103	30	58	64	38	45	14	340	63	90	48	Total.
91	79	95	83	91	93	86	87	75	88	40	Percentage in regular employment.
3	—	3	11	—	5	—	6	5	3	—	„ convicted or reconvicted.
—	11	2	5	6	—	—	3	13	1	60	„ unknown.

‡ 1 imbecile. § 3 imbecile.

Industrial Schools.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

	SCOTLAND—*continued.*											
	Leith.		St. Joseph's Tranent, Roman Catholic.		Arbroath.		Dundee.		"Mars."	Glasgow, Mossbank.	Glasgow, Maryhill.		Glasgow, Roman Catholic Orphanage.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
LEFT DURING THE YEARS 1903, 1904, AND 1905.														
To employment—														
(*a.*) Away from friends ..	40	28	49	3	95	45	33	105	115	29	64			
(*b.*) To live with friends ..	17	—	2	2	—	—	15	1	3	63	31			
To friends—														
(*a.*) Friends of decent character.	1	1	63	1	21	15	122	132	17	40	21			
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	—	—	—	1	4	—	—	—			
Emigrated	—	—	1	—	1	—	—	—	4	—	—			
To sea	2	—	2	—	—	—	169	—	—	—	—			
Enlisted	—	—	1	—	—	—	19	5	—	—	—			
Discharged on account of disease.	1	1	2	2	1	1	4	2	—	3	1			
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	—	—	1	1	—	1	—			
Total	61	30	120	8	118	61	364	250	139	136	117			
Since dead	—	1	4	—	2	—	6	2	3	—	7			
In regular employment ..	55	27	67	8	99	54	306	220	130	116	106			
Not in regular employment	3‡	2*	5	—	2	—	14†	11§	5‖	6*	—			
Convicted of crime	1	—	8	—	6	—	21	12	1	14	2			
Unknown	2	—	36	—	9	7	17	5	—	—	2			
Total	61	30	120	8	118	61	364	250	139	136	117			
Percentage in regular employment.	90	93	58	100	85	89	85	89	96	85	96			
„ convicted or re-convicted.	2	—	7	—	5	—	6	5	1	10	2			
„ unknown ..	3	—	31	—	8	11	5	2	—	—	2			

* 1 physically unfit. † 2 physically unfit. ‡ 3 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1903, 1904, and 1905, showing the Number in Regular Employment, or Licence to December 31, 1906—*continued.*

SCOTLAND—*continued.*

Glasgow, Slatefield, Roman Catholic.		Dalbeth, Roman Catholic.	Perth Feehney.	Perth Ladies'.	Perth Girls'.	Greenock.		Paisley		Stirling.	Newton Stewart.	—
Boys.	Girls.					Boys.	Girls.	Boys.	Girls.	Girls.	Girls.	
												LEFT DURING THE YEARS 1903, 1904, AND 1905.
24	68	37	14	21	27	12	19	17	9	22		To employment— (*a.*) Away from friends.
19	3	19	1	—	45	2	18	1	—	—		(*b.*) To live with friends.
57	8	11	1	—	1	—	16	7	3	—		To friends— (*a.*) Friends of decent character.
1	—	1	1	—	—	—	4	4	—	—		(*b.*) Friends of questionable character, or otherwise undesirable.
—	2	—	—	—	—	—	—	—	—	—		Emigrated.
—	—	—	—	—	—	—	—	—	—	—		To sea.
—	—	1	—	—	6	—	—	—	—	—		Enlisted.
1	4	7	—	—	1	—	—	—	—	—		Discharged on account of disease.
—	—	—	—	—	2	—	1	—	—	—		Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
102	85	76	17	21	82	14	58	29	12	22		Total.
2	4¶	3	—	—	1	—	1	—	1	—		Since dead.
87	79	68	17	20	62	10	47	27	11	21		In regular employment.
4	1	1	—	1	2	—	—	—	—	1*		Not in regular employment.
9	—	2	—	—	6	—	2	—	—	—		Convicted of crime.
—	1	2	—	—	11	4	8	2	—	—		Unknown.
102	85	76	17	21	82	14	58	29	12	22		Total.
87	98	93	100	95	77	71	82	93	100	95		Percentage in regular employment.
9	—	3	—	—	7	—	4	—	—	—		„ convicted or reconvicted.
—	1	3	—	—	14	29	14	7	—	—		„ unknown.

§ 4 physically unfit. ‖ 5 physically unfit. ¶ 2 imbecile.

Industrial Schools.

APPENDIX No. IV. (D.)—ABSTRACT.

INDUSTRIAL SCHOOLS.—RETURN of DISCHARGES, &c., for Years 1903, 1904, and 1905.

—	ENGLAND.				SCOTLAND.				TOTAL.	
	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys.	Girls.
MODE OF DISCHARGE.										
To employment—										
(a.) Away from friends ..	1,918	527	987	426	500	102	382	168	3,047	1,963
(b.) To live with friends ..	565	157	22	9	196	84	7	37	1,002	75
To friends—										
(a.) Friends of decent character.	954	394	115	50	480	160	57	47	1,988	269
(b.) Friends of doubtful character, or otherwise undesirable.	68	30	4	8	64	1	8	1	163	21
Emigrated	174	218	35	44	11	1	16	2	404	97
To sea	1,035	26	—	—	390	2	—	—	1,453	—
Enlisted	605	104	—	—	50	1	—	—	760	—
Discharged on account of disease.	42	14	24	9	25	6	5	5	87	43
Absconders, discharged by expiration of sentence, or by warrant of Secretary of State.	5	5	1	—	6	1	—	—	17	1
Total	5,366	1,475	1,188	546	1,722	358	475	260	8,921	2,469
SUBSEQUENT CHARACTER.										
Since dead	59*a*	28*b*	17*c*	8	22	6	11*d*	11*e*	115*m*	47*n*
In regular employment ..	4,600	1,229	1,029	507	1,468	270	401	240	7,567	2,177
Not in regular employment ..	269*f*	91*g*	64*h*	8*i*	65*j*	15*k*	15*l*	1	440*o*	88*p*
Convicted of crime	217	52	15	1	92	31	1	4	392	21
Unknown	221	75	63	22	75	36	47	4	407	136
Total	5,366	1,475	1,188	546	1,722	358	475	260	8,921	2,469
Percentage in regular employment.	87	85	88	94	86	77	87	96	86	90
" not in regular employment.	5	6	6	2	4	4	3	—	5	4
" convicted or re-convicted.	4	4	1	—	5	9	—	2	4	1
" unknown ..	4	5	5	4	5	10	10	2	5	5

a 11 imbecile. *b* 3 imbecile. *c* 5 imbecile *d* 3 imbecile. *e* 2 imbecile. *f* 32 physically unfit. *g* 14 physically unfit. *h* 24 physically unfit. *i* 6 physically unfit. *j* 10 physically unfit. *k* 1 physically unfit. *l* 10 physically unfit. *m* 14 imbecile. *n* 10 imbecile. *o* 57 physically unfit. *p* 40 physically unfit.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS,

RETURN of RECEIPTS and EXPENDITURE for 1906

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	England.				
	Cold Ash, Girls.	"Clio," Boys.	Chester, Boys.	Birken-head, Boys.	Stockport, Boys.
	No. 29. Officers, 4.	No. 223. Officers, 20.	No. 80. Officers, 14.	No. 81. Officers, 10.	No. 95. Officers, 13.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	149 10 6	2,398 4 8 *54 15 0	310 4 1	758 17 2	1,001 17 7
Subscriptions, Legacies, &c.	365 2 5	477 2 3	—	58 7 0	337 12 6
County and Borough Rates	96 10 0	710 7 8	266 4 5	7 18 0	712 15 1
Education Authority Rates	92 19 5	1,366 18 3	368 12 9	593 11 2	243 3 7
Parochial Authorities ..	—	83 4 0	—	—	70 6 4
Voluntary Inmates	3 8 10	201 6 4	—	38 18 6	21 0 0
Hire of Labour..	—	—	6 6 0	—	210 4 8
Sundries	—	58 3 10	—	41 14 8	6 16 9
Total Receipts ..	707 11 2	5,350 2 0	1,451 7 3	1,499 6 6	2,603 16 6
Expenditure.					
Officers' Salaries and Allowances.	211 8 8	1,739 6 2	610 17 0	652 6 5	737 7 7
Food of Inmates	112 6 2	1,343 15 6	510 6 3	427 6 0	637 0 2
Clothing	44 14 6	590 15 8	240 17 4	262 6 11	288 2 3
Washing, Fuel, Light, and Furniture.	150 10 6	526 12 2	267 11 11	198 1 3	410 8 10
Repairs, Rates, and Taxes ..	73 10 11	180 17 0	138 17 9	186 15 0	238 15 0
Printing and Office Expenses	20 2 0	318 0 0	41 9 10	47 15 11	43 2 7
Travelling and Police ..	28 15 9	74 13 8	9 2 2	20 16 2	14 1 10
Medical Expenses and Funerals.	5 1 10	106 16 0	1 18 11	37 7 1	3 19 9
Sundries	53 8 2	54 4 5	24 6 5	39 17 2	20 2 8
Total Ordinary Charges	699 18 6	4,935 0 7	1,845 7 7	1,872 11 11	2,393 0 8
Cost per Head for Maintenance and Management.	24 2 8	22 2 7	23 1 4	23 2 4	25 3 10
Ditto Food	3 17 5	6 0 6	7 7	5 5 6	6 14 1
Ditto Clothing	1 10 10	2 13 0	3 0 3	3 4 9	3 0 8
Extra Charges.					
Rent of School and Interest	—	—	—		88 3 10
„ Farm Premises ..	—	—	5 9 4	—	—
Disposal, Home Service ..	12 10 0	331 8 7	43 14 6	79 6 0	90 0 6
„ Emigration ..	—	—	—	24 0 0	—
Building & Capital Account	—	—	—	51 8 9	—
Total Extra Charges ..	12 10 0	331 8 7	49 3 10	154 14 9	178 4 4
Total Expenditure	712 8 6	5,266 9 2	1,894 11 5	2,027 6 8	2,571 5 0
Industrial Departments.					
Profit	4 17 4	53 13 10	74 11 5	24 17 0	216 3 3
Loss	—	—	—	—	—

* Admiralty grant for Gunnery Instructor.

APPENDIX No. IV. (E.)

and EXPENDITURE of, for 1906.

ENGLAND.					
STOCKPORT, Girls. No. 65. Officers, 6.	MACCLESFIELD, Boys. No. 128. Officers, 15.	BISHOP BROWN. (Ro. Cath.) Boys. No. 130. Officers, 13.	"MOUNT EDGCUMBE," Boys. No. 197. Officers, 18.	CUMBERLAND COUNTY, Boys. No. 140. Officers, 16.	RECEIPTS AND EXPENDITURE
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
616 12 5	1,372 18 7	1,010 0 8	2,349 17 6 *54 15 0	1,063 2 5	Treasury Grant.
112 11 0	46 16 6	4 13 6	303 0 3	—	Subscriptions, Legacies, &c.
263 3 7	954 6 6	939 10 1	372 5 5	2,447 15 5	County and Borough Rates.
376 9 7	563 4 5	421 11 1	2,208 18 11	—	Education Authority Rates.
31 5 7	18 5 0	8 9 5	41 15 8	—	Parochial Authorities.
9 5 0	—	11 14 8	38 6 8	—	Voluntary Inmates.
9 14 2	—	217 7 10	—	—	Hire of Labour.
4 7 6	205 1 6	34 6 5	19 14 6	—	Sundries.
1,423 8 10	3,160 12 6	2,647 13 8	5,388 13 11	3,510 17 10	TOTAL RECEIPTS.
					EXPENDITURE.
329 9 5	796 1 10	388 4 0	1,914 1 2	1,025 1 7	Officers' Salaries and Allowances.
332 1 8	862 19 8	829 11 6	1,502 5 10	728 11 7	Food of Inmates.
207 9 2	326 17 5	470 9 10	544 19 6	434 1 1	Clothing.
186 12 9	448 1 1	162 7 1	124 3 1	559 0 9	Washing, Fuel, Light, and Furniture.
164 15 10	231 14 7	189 9 11	479 3 1	238 5 1	Repairs, Rates, and Taxes.
25 9 4	193 5 8	33 7 4	220 16 11	82 4 4	Printing and Office Expenses.
20 8 4	0 7 8	61 15 1	84 3 5	21 0 1	Travelling and Police.
—	37 16 9	37 13 0	55 12 5	91 3 1	Medical Expenses and Funerals.
33 3 8	327 8 7	95 6 7	152 19 8	105 9 5	Sundries.
1,299 10 2	3,124 13 3	2,268 4 4	5,078 5 1	3,284 17 0	Total Ordinary Charges.
19 19 10	24 8 3	17 8 11	25 15 7	23 9 3	Cost per Head for Maintenance and Management.
5 2 2	6 14 10	6 7 8	7 12 6	5 4 1	Ditto Food.
3 3 10	2 11 1	3 12 5	2 15 4	3 2 0	Ditto Clothing.
					Extra Charges.
48 14 8	40 6 7	254 14 2	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
33 0 0	150 6 1	69 0 0	100 5 9	123 3 0	Disposal, Home Service.
—	—	25 0 0	—	—	„ Emigration.
—	—	130 0 0	—	82 16 11	Building & Capital Account.
81 14 8	190 12 8	478 14 2	100 5 9	205 19 11	Total Extra Charges.
1,381 4 10	3,315 5 11	2,746 18 6	5,178 10 10	3,490 16 11	TOTAL EXPENDITURE.
					Industrial Departments.
140 1 8	137 5 8	212 9 1	—	21 2 10	Profit.
—	—	—	80 12 3	—	Loss.

Industrial Schools

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Chadwick, (Ro. Cath.) Boys.	Devon and Exeter, Boys.	Plymouth, Girls.	Dorset County, Boys.	Dorset, Girls.
	No. 194. Officers, 17.	No. 69. Officers, 10.	No. 53. Officers, 6.	No. 58. Officers, 10.	No. 75. Officers, 7.
RECEIPTS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,713 5 2	547 8 4	439 13 8	411 0 0	690 12 11
Subscriptions, Legacies, &c.	—	130 13 0	65 19 6	20 0 0	96 15 11
County and Borough Rates	387 0 3	353 14 5	439 3 1	879 1 8	780 18 4
Education Authority Rates	1,616 6 6	477 11 3	298 13 2	—	25 9 6
Parochial Authorities ..	26 4 0	18 5 0	—	—	18 5 0
Voluntary Inmates	—	—	—	—	57 19 0
Hire of Labour..	—	70 5 5	—	45 8 8	—
Sundries	240 15 9	—	—	—	6 17 10
TOTAL RECEIPTS ..	3,983 11 8	1,597 17 5	1,243 9 5	1,355 10 4	1,676 18 6
EXPENDITURE.					
Officers' Salaries and Allowances.	1,015 0 6	357 0 0	268 5 2	412 14 3	512 18 4
Food of Inmates	1,397 3 1	555 0 0	359 17 2	338 8 2	348 19 7
Clothing	413 8 4	235 0 8	132 17 10	179 4 8	149 17 6
Washing, Fuel, Light, and Furniture.	377 15 3	234 10 1	224 0 6	127 2 8	217 5 8
Repairs, Rates, and Taxes ..	260 17 3	119 13 11	99 8 6	97 18 9	171 11 7
Printing and Office Expenses	91 10 10	36 16 6	23 8 3	62 2 3	34 16 3
Travelling and Police ..	63 8 7	17 14 4	12 5 9	11 8 1	30 7 0
Medical Expenses and Funerals.	43 7 4	26 16 6	44 6 0	17 13 11	111 2 1
Sundries	45 9 8	46 9 1	57 5 5	22 11 9	16 6 0
Total Ordinary Charges	3,708 0 10	1,629 1 1	1,219 14 7	1,269 4 6	1,593 4 0
Cost per Head for Maintenance and Management.	19 2 3	23 12 2	23 0 3	21 17 8	21 4 10
Ditto Food	7 4 0	8 0 10	6 15 10	5 16 8	4 13 1
Ditto Clothing	2 2 7	3 8 2	2 10 2	3 1 10	2 0 0
Extra Charges.					
Rent of School and Interest	265 7 9	12 9 5	56 5 0	30 0 0	26 2 5
„ Farm Premises ..	6 1 8	5 0 0	—	8 0 0	—
Disposal, Home Service ..	149 11 6	39 1 0	53 3 1	58 11 1	24 0 0
„ Emigration ..	—	—	—	—	—
Building & Capital Account	—	204 5 0	—	175 17 2	—
Total Extra Charges ..	421 0 11	260 15 5	109 8 1	272 8 3	50 2 5
TOTAL EXPENDITURE	4,129 1 9	1,889 16 6	1,329 2 8	1,541 12 9	1,643 6 5
Industrial Departments.					
Profit	134 18 2	197 18 8	108 10 7	44 11 1	—
Loss	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*

DURHAM COUNTY, Boys. No. 114. Officers, 15.	SUNDERLAND, Boys. No. 102. Officers, 10.	"WELLESLEY," Boys. No. 288. Officers, 22.	GREEN'S HOME, Boys. No. 57. Officers, 5.	GATESHEAD, Boys. No. 111. Officers, 16.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
834 3 9	1,213 14 0	2,454 18 3	245 1 5	1,347 12 1	Treasury Grant.
—	26 10 6	455 7 10	—	96 3 8	Subscriptions, Legacies, &c.
1,682 15 2	627 4 5	240 18 9	40 12 8	61 19 4	County and Borough Rates.
339 10 0	14 11 6	1,562 6 4	171 13 6	532 10 8	Education Authority Rates.
2 13 7	—	1,247 8 1	404 13 4	—	Parochial Authorities.
—	—	164 5 6	13 0 0	9 7 0	Voluntary Inmates.
53 16 5	19 17 10	5 0 0	—	72 8 8	Hire of Labour.
1 1 9	579 14 4	534 10 3	—	—	Sundries.
2,914 0 8	2,481 12 7	6,664 15 0	875 0 11	2,120 1 5	TOTAL RECEIPTS.
					EXPENDITURE.
1,146 1 10	522 2 11	1,894 13 9	272 0 0	1,053 2 3	Officers' Salaries and Allowances.
689 4 10	625 6 10	1,933 8 6	294 17 9	509 19 8	Food of Inmates.
281 13 2	122 10 3	889 1 10	241 19 3	261 13 7	Clothing.
516 6 1	199 15 4	705 8 1	86 1 10	470 8 8	Washing, Fuel, Light, and Furniture.
119 11 10	37 14 3	554 0 8	81 9 4	271 8 1	Repairs, Rates, and Taxes.
49 7 9	151 3 1	336 2 1	8 0 7	70 11 11	Printing and Office Expenses.
—	13 10 1	87 16 9	3 4 4	8 15 5	Travelling and Police.
98 14 4	32 3 6	176 9 0	23 1 8	72 3 0	Medical Expenses and Funerals.
137 12 11	15 19 4	124 3 9	16 8 7	31 18 0	Sundries.
3,028 12 9	1,720 5 7	6,701 4 5	1,027 3 4	2,750 0 7	Total Ordinary Charges.
26 11 4	16 17 4	23 5 4	18 0 5	24 15 6	Cost per Head for Maintenance and Management.
6 0 11	6 2 7	6 14 3	5 3 6	4 11 11	Ditto Food.
2 9 5	1 4 0	3 1 5	4 4 11	2 7 2	Ditto Clothing.
					Extra Charges.
—	17 10 11	—	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
46 16 0	37 9 6	214 14 8	—	62 8 10	Disposal, Home Service.
27 2 2	—	—	—	—	„ Emigration.
3 8 3	475 7 7	—	—	—	Building & Capital Account.
77 6 5	530 8 0	214 14 8	—	62 8 10	Total Extra Charges.
3,105 19 2	2,250 13 7	6,915 19 1	1,027 3 4	2,812 9 5	TOTAL EXPENDITURE.
					Industrial Departments.
127 7 6	—	519 0 7	82 15 10	597 13 6	Profit.
—	89 15 3	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure	ENGLAND—*continued.*				
	Sunderland, Girls. No. 52. Officers, 5.	Darlington, (Ro. Cath.) Girls. No. 116. Officers, 14.	Essex, Boys. No. 143. Officers, 15.	Ilford, (Ro. Cath.) Boys. No. 231 Officers, 21.	Walthamstow,* (Ro. Cath.) Boys. No. — Officers, —
Receipts.	£ s. d.	£ s. d.	£ s. d	£ s. d.	£ s. d.
Treasury Grant	563 0 0	261 17 5	1,049 17 11	2,847 14 6	376 14 3
Subscriptions, Legacies, &c.	—	434 9 4	354 4 6	—	—
County and Borough Rates	182 3 5	95 8 5	1,910 5 4	385 2 10	270 4 11
Education Authority Rates	165 19 11	190 5 8	259 13 2	2,326 17 10	62 4 11
Parochial Authorities ..	—	426 12 3	—	—	—
Voluntary Inmates	—	228 0 0	63 11 9	—	3 9 2
Hire of Labour..	26 11 6	—	—	—	—
Sundries	6 13 7	—	102 15 11	18 12 4	3 4 3
Total Receipts.	944 8 5	1,636 13 1	3,740 8 7	5,378 7 6	715 17 6
Expenditure.					
Officers' Salaries and Allowances.	314 1 9	176 0 0	972 2 9	1,656 7 8	159 8 2
Food of Inmates	296 9 11	747 14 3	747 19 7	1,572 2 0	243 18 1
Clothing	108 3 11	236 11 3	448 17 4	1,059 9 6	53 16 1
Washing, Fuel, Light, and Furniture.	130 14 9	355 9 3	459 6 0	705 2 7	63 17 7
Repairs, Rates, and Taxes ..	55 4 10	193 11 6	325 7 6	923 18 3	100 5 3
Printing and Office Expenses	31 13 11	10 16 1	102 9 9	47 8 4	11 16 10
Travelling and Police ..	23 6 11	37 1 11	32 13 3	84 18 0	4 14 2
Medical Expenses and Funerals.	17 3 8	56 4 6	241 11 1	88 2 7	12 2 5
Sundries	29 3 4	38 5 1	39 10 5	123 2 2	10 17 2
Total Ordinary Charges	1,006 3 0	1,850 13 10	3,369 17 8	6,260 11 1	660 15 9
Cost per Head for Maintenance and Management.	19 7 0	15 19 1	23 11 4	27 2 0	—
Ditto Food	5 14 0	6 8 11	5 4 7	6 16 1	—
Ditto Clothing	2 1 7	2 0 9	3 2 9	4 11 9	—
Extra Charges.					
Rent of School and Interest	27 3 10	332 15 0	35 14 0	—	—
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	42 0 0	26 15 0	69 17 9	152 11 8	—
„ Emigration ..	17 14 6	—	53 2 11	365 10 0	40 1 6
Building & Capital Account	—	—	282 11 4	—	—
Total Extra Charges ..	86 18 4	359 10 0	441 6 0	518 1 8	40 1 6
Total Expenditure	1,093 1 4	2,210 3 10	3,811 3 8	6,778 12 9	700 17 3
Industrial Departments.					
Profit	26 11 6	224 19 1	—	740 16 3	—
Loss	—	—	58 8 2	—	—

* School closed January, 1906.

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*

HALSTEAD, Girls. No. 60. Officers, 7.	SWANSEA, Boys. No. 65. Officers, 8.	PARK ROW, Boys. No. 76. Officers, 7.	CLIFTON, Boys. No. 190. Officers, 15.	"NATIONAL NAUTICAL" late "FORMIDABLE," Boys. No. 299. Officers, 20.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
633 4 11	599 3 4	860 15 5	2,152 17 2	3,419 12 10	Treasury Grant.
155 19 6	—	17 4 0	36 13 0	*15,063 6 2	Subscriptions, Legacies, &c.
137 0 8	—	70 17 5	86 18 6	†3 507 13 11	County and Borough Rates.
439 2 7	926 18 1	691 14 1	2,252 12 6	‡11,649 11 1	Education Authority Rates.
—	—	—	16 14 11	§415 12 8	Parochial Authorities.
15 12 0	2 0 0	—	—	511 1 6	Voluntary Inmates
—	—	67 12 8	102 2 9	—	Hire of Labour.
33 5 7	11 2 0	57 13 8	33 9 4	235 7 1	Sundries.
1,414 5 3	1,539 3 5	1,765 17 3	4,681 8 2	34,802 5 3	TOTAL RECEIPTS.
					EXPENDITURE.
372 14 1	465 10 9	400 5 6	1,158 7 2	2,401 7 10	Officers' Salaries and Allowances.
399 9 10	410 11 9	391 2 0	1,268 13 4	1,388 9 7	Food of Inmates.
138 14 7	166 12 6	227 19 3	494 3 0	1,104 9 8	Clothing.
147 0 2	156 1 4	154 18 0	509 19 3	444 19 4	Washing, Fuel, Light, and Furniture.
191 17 0	87 12 0	286 10 10	480 19 4	557 11 8	Repairs, Rates, and Taxes.
27 17 1	29 18 2	48 3 5	211 19 11	494 10 3	Printing and Office Expenses.
11 14 7	21 18 4	38 4 8	83 13 1	47 3 0	Travelling and Police.
11 11 10	48 17 4	44 9 9	105 8 9	204 16 5	Medical Expenses and Funerals.
11 3 7	18 16 8	133 13 5	186 2 0	246 1 7	Sundries
1,312 2 9	1,405 18 10	1,725 6 10	4,499 5 10	6,889 9 4	Total Ordinary Charges.
21 17 4	21 12 7	22 14 0	23 13 7	.23 0 10	Cost per Head for Maintenance and Management.
6 13 2	6 6 4	5 2 11	6 13 7	4 12 10	Ditto Food.
2 6 3	2 11 3	3 0 0	2 12 0	3 13 11	Ditto Clothing.
					Extra Charges.
25 0 0	—	78 7 6	13 12 0	130 15 3	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
37 19 9	19 17 1	70 10 11	188 3 1	361 17 9	Disposal, Home Service.
8 0 0	—	—	—	—	„ Emigration.
—	80 4 1	—	32 15 6	31,388 16 4	Building & Capital Account.
70 19 9	100 1 2	148 18 5	234 10 7	31,881 9 4	Total Extra Charges.
1,383 2 6	1,506 0 0	1,874 5 3	4,733 16 5	38,770 18 8	TOTAL EXPENDITURE.
					Industrial Departments.
—	—	41 3 0	212 4 0	275 14 3	Profit.
—	46 13 2	—	—	—	Loss.

* Including £14,736 15s. 8d. towards Building Fund
† Including £2,800 towards Building Fund.
‡ Including £9,927 15s. towards Building Fund.
§ Including £115 towards Building Fund.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Bristol, Girls. No. 60. Officers, 6.	Carlton House, Girls. No. 57. Officers, 5.	Purbrook, Boys. No. 81. Officers, 11.	Milton, Boys. No. 151. Officers, 24.	Portsmouth and South Hants, Girls. No. 35. Officers, 6.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	647 4 7	457 8 1	706 11 8	387 4 0	289 8 10
Subscriptions, Legacies, &c.	31 0 6	—	—	2,549 0 8	144 15 0
County and Borough Rates	66 2 7	—	749 16 6	455 7 2	26 12 7
Education Authority Rates	520 5 9	685 3 0	25 15 5	116 12 5	381 3 1
Parochial Authorities ..	—	—	32 17 0	—	18 6 0
Voluntary Inmates	—	—	—	8 11 4	—
Hire of Labour	—	—	—	—	—
Sundries	19 18 0	—	—	—	—
Total Receipts	1,284 11 5	1,142 11 1	1,515 0 7	3,516 15 7	860 5 6
Expenditure.					
Officers' Salaries and Allowances.	348 16 0	347 7 0	510 3 11	1,026 0 0	265 2 2
Food of Inmates	428 11 3	297 14 11	502 2 8	644 11 5	249 1 8
Clothing	137 16 6	150 16 8	199 2 4	319 4 11	60 3 3
Washing, Fuel, Light, and Furniture.	114 10 1	131 13 8	88 1 1	584 5 9	118 9 2
Repairs, Rates, and Taxes ..	113 4 1	113 15 0	72 0 4	478 10 5	371 15 9
Printing and Office Expenses	11 5 4	8 15 2	18 4 9	115 0 1	26 18 6
Travelling and Police ..	7 9 6	—	35 1 1	4 6 6	3 12 2
Medical Expenses and Funerals.	12 17 10	23 13 6	25 4 1	84 10 7	2 13 8
Sundries	17 17 9	48 17 7	11 11 1	37 1 0	28 6 6
Total Ordinary Charges	1,192 8 4	1,122 13 6	1,461 11 4	3,293 10 8	1,126 2 10
Cost per Head for Maintenance and Management.	19 17 6	19 13 11	18 0 11	21 16 3	32 3 6
Ditto Food	7 2 10	5 4 6	6 4 0	4 5 4	7 2 4
Ditto Clothing	2 5 11	2 12 11	2 9 2	2 2 3	1 14 5
Extra Charges.					
Rent of School and Interest	5 12 0	—	16 0 0	—	—
„ Farm Premises ..	—	—	17 0 0	—	—
Disposal, Home Service ..	44,14 3	19 17 7	74 4 6	66 10 0	30 5 8
„ Emigration ..	—	—	—	132 12 0	—
Building & Capital Account		—	18 0 0	—	—
Total Extra Charges ..	50 6 3	19 17 7	125 4 6	199 2 0	30 5 8
Total Expenditure	1,242 14 7	1,142 11 1	1,586 15 10	3,492 12 8	1,156 8 6
Industrial Departments.					
Profit	—	—	22 16 6	34 12 8	—
Loss	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*					
HEREFORD. Boys. No. 125. Officers, 15.	CHURCH FARM. Boys. No. 84. Officers, 16.	KENT COUNTY, Boys. No. 182. Officers, 17.	ST. VINCENT'S, (Ro. Cath.) Boys. No. 199. Officers, 25.	WHITSTABLE, (Ro. Cath.) Boys. No. 51. Officers, 8.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
845 2 0	697 18 7	1,198 16 3	2,337 3 1	357 0 2	Treasury Grant.
563 4 11	593 4 8	—	272 8 3	—	Subscriptions, Legacies, &c.
100 4 10	1,047 8 7	3,276 16 6	3,234 8 4	1,004 7 3	County and Borough Rates.
1,574 14 6	34 18 4	207 2 3	45 10 0	5 4 6	Education Authority Rates.
45 4 0	—	15 19 0	—	20 17 1	Parochial Authorities.
71 19 0	—	—	—	—	Voluntary Inmates.
111 15 3	—	—	—	—	Hire of Labour.
93 12 10	338 0 2	—	—	—	Sundries.
3,395 17 4	2,711 10 4	4,698 14 0	5,889 9 8	1,387 9 0	TOTAL RECEIPTS.
					EXPENDITURE.
770 4 10	710 8 2	1,155 6 9	1,036 7 5	350 0 0	Officers' Salaries and Allowances.
699 14 5	549 11 6	1,413 11 2	1,603 4 8	454 6 9	Food of Inmates.
447 5 0	293 2 0	563 1 1	693 8 2	118 3 1	Clothing.
401 12 7	337 12 9	593 19 9	674 12 8	159 7 6	Washing, Fuel, Light, and Furniture.
157 5 10	200 5 10	318 16 3	671 15 9	93 4 7	Repairs, Rates, and Taxes.
156 0 1	213 12 10	67 8 11	97 19 7	10 11 10	Printing and Office Expenses.
15 1 0	20 2 10	63 18 8	83 15 8	10 0 0	Travelling and Police.
45 0 0	59 7 5	138 5 7	58 12 3	5 10 0	Medical Expenses and Funerals.
212 2 7	238 14 11	30 11 4	164 11 1	14 13 6	Sundries.
2,904 6 4	2,622 18 3	4,344 19 6	5,084 7 3	1,215 17 3	Total Ordinary Charges.
23 4 8	31 4 6	23 17 6	25 11 0	23 16 10	Cost per Head for Maintenance and Management.
5 11 11	6 10 10	7 15 4	8 1 2	8 18 2	Ditto Food.
3 11 7	3 9 9	3 1 10	3 9 8	2 6 4	Ditto Clothing.
					Extra Charges.
—	—	—	259 17 8	196 18 4	Rent of School and Interest.
16 1 10	36 0 0	—	25 0 0	—	„ Farm Premises.
155 5 6	126 2 10	29 16 3	187 2 3	—	Disposal, Home Service.
—	—	—	364 15 0	—	„ Emigration.
264 10 0	289 8 10	987 3 10	376 4 7	161 2 0	Building & Capital Account.
435 17 4	451 11 8	1,017 0 1	1,212 19 6	358 0 4	Total Extra Charges.
3,340 3 8	3,074 9 11	5,361 19 7	6,297 6 9	1,573 17 7	TOTAL EXPENDITURE.
					Industrial Departments.
286 5 8	869 8 4	863 5 7	288 9 11	—	Profit.
—	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	East London, Boys.	Bolton, Boys.	Manchester, Boys.	Sale, Girls.	Barnes' Home, Boys.
	No. 148. Officers, 16.	No. 200. Officers, 17.	No. 177. Officers, 17.	No. 99. Officers, 11.	No. 261. Officers, 25.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,661 7 6	2,209 11 0	1,917 16 10	1,114 13 4	3,028 5 1
Subscriptions, Legacies, &c.	389 5 8	90 3 5	74 11 7	37 0 4	97 7 2
County and Borough Rates	2,782 1 10	853 7 3	1,515 5 8	615 12 9	2,094 4 5
Education Authority Rates	—	1,258 6 4	587 11 2	429 18 4	972 14 3
Parochial Authorities ..	—	72 11 8	57 17 0	—	—
Voluntary Inmates	—	—	—	—	—
Hire of Labour	—	145 14 10	86 11 7	—	581 7 6
Sundries	—	33 3 0	204 17 6	32 16 11	105 5 11
Total Receipts ..	4,812 15 0	4,662 17 6	4,444 11 4	2,230 1 8	6,879 4 4
Expenditure.					
Officers' Salaries and Allowances.	980 9 0	1,149 19 8	1,237 13 4	504 6 4	1,827 1 4
Food of Inmates	990 9 5	1,066 7 10	856 15 6	568 16 5	1,180 9 5
Clothing	529 16 1	455 10 4	518 15 10	389 14 11	747 1 8
Washing, Fuel, Light, and Furniture.	450 3 10	752 10 0	561 8 9	389 2 4	924 13 0
Repairs, Rates, and Taxes ..	456 5 2	392 11 2	462 1 9	175 14 9	554 4 4
Printing and Office Expenses	186 0 3	185 2 9	176 6 4	104 5 7	296 7 3
Travelling and Police ..	9 19 10	27 7 6	42 10 1	58 11 3	96 4 2
Medical Expenses and Funerals.	62 8 4	73 3 11	59 5 1	22 5 6	88 10 4
Sundries	238 1 10	132 10 7	126 19 1	171 10 0	153 19 5
Total Ordinary Charges	3,903 13 9	4,235 3 9	4,041 15 9	2,384 7 1	5,868 10 11
Cost per Head for Maintenance and Management.	26 7 6	21 3 6	22 16 8	24 1 8	22 9 8
Ditto Food	6 13 10	5 6 8	4 16 10	5 14 11	4 10 5
Ditto Clothing	3 11 7	2 5 7	2 18 7	3 18 9	2 17 3
Extra Charges.					
Rent of School and Interest	192 8 9	17 9 3	—	—	—
„ Farm Premises ..	—	12 0 0	—	—	—
Disposal, Home Service ..	190 13 8	137 1 7	181 3 0	86 18 2	139 19 8
„ Emigration ..	—	15 8 2	—	—	—
Building & Capital Account	—	—	—	—	257 12 3
Total Extra Charges ..	383 2 5	181 19 0	181 3 0	86 18 2	397 11 11
Total Expenditure	4,286 16 2	4,417 2 9	4,222 18 9	2,471 5 3	6,266 2 10
Industrial Departments.					
Profit	—	350 11 0	153 12 3	107 3 2	792 18 11
Loss	73 13 8	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued*.

ENGLAND—*continued*.

St Joseph's, (Ro. Cath.) Boys. No. 353. Officers, 40.	St. Joseph's, (Ro. Cath.) Girls. No. 158. Officers, 18.	Liverpool, Boys. No. 215. Officers, 19.	Liverpool, Girls. No. 96. Officers, 7.	Grafton Street, Boys. No. 207. Officers, 17.	Receipts and Expenditure.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Receipts.
3,943 10 9	1,762 10 3	2,046 10 8	983 5 7	2,159 2 9	Treasury Grant.
1 11 3	40 16 0	30 12 9	30 12 9	60 9 0	Subscriptions, Legacies, &c.
800 18 10	281 18 8	208 1 8	168 17 8	123 19 5	County and Borough Rates.
1,994 0 11	902 8 10	1,647 3 4	736 14 9	1,613 19 10	Education Authority Rates.
46 5 2	—	45 12 8	—	—	Parochial Authorities.
36 10 0	58 0 0	—	—	—	Voluntary Inmates.
405 18 3	—	106 3 1	0 13 6	136 14 6	Hire of Labour.
—	—	76 7 0	—	17 0	Sundries.
7,228 15 2	3,045 13 9	4,160 11 2	1,920 4 3	4,095 2 6	Total Receipts.
					Expenditure.
1,206 19 6	504 8 0	947 5 0	410 12 4	892 1 4	Officers' Salaries and Allowances.
2,399 18 6	1,044 11 3	1,215 11 2	539 11 4	1,088 19 6	Food of Inmates.
817 17 0	410 11 9	549 11 0	288 8 8	535 7 6	Clothing.
790 6 8	326 13 1	686 12 3	410 5 7	449 0 8	Washing, Fuel, Light, and Furniture.
739 5 10	431 1 11	299 1 3	85 16 0	227 7 6	Repairs, Rates, and Taxes.
174 7 1	75 7 5	205 6 11	74 1 0	201 16 2	Printing and Office Expenses.
40 10 9	47 2 11	49 15 11	23 11 11	24 15 2	Travelling and Police.
157 0 6	39 12 4	91 13 5	54 14 4	100 9 4	Medical Expenses and Funerals.
95 18 9	41 10 0	86 19 5	53 12 1	152 4 7	Sundries.
6,422 4 7	2,920 18 8	4,131 16 4	1,940 13 3	3,672 1 9	Total Ordinary Charges.
18 3 10	18 9 9	19 4 4	20 4 4	17 14 9	Cost per Head for Maintenance and Management.
6 16 0	6 12 3	5 13 1	5 12 5	5 5 3	Ditto Food.
2 6 4	2 12 0	2 11 1	3 0 1	2 11 9	Ditto Clothing.
					Extra Charges.
399 14 4	248 0 0	31 6 10	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
137 0 0	139 10 0	71 3 8	166 5 7	129 0 0	Disposal, Home Service.
—	—	36 0 0	—	12 0 0	„ Emigration.
—	115 0 0	132 4 8	—	—	Building & Capital Account.
536 14 4	502 10 0	270 15 2	166 5 7	141 0 0	Total Extra Charges.
6,958 18 11	3,423 8 8	4,402 11 6	2,106 18 10	3,813 1 9	Total Expenditure.
					Industrial Departments
472 11 6	369 15 0	364 11 6	165 9 11	75 19 8	Profit.
—	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Nile Street, Girls.	St. George's, (Ro. Cath.) Boys.	St. Anne St., (Ro. Cath.) Boys.	Beacon Lane, (Ro. Cath.) Boys.	St. Thomas', (Ro. Cath.) Boys.
	No. 80. Officers, 6.	No. 267. Officers, 18.	No. 147. Officers, 17.	No. 198. Officers, 20.	No. 105. Officers, 16.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	641 7 10	2,653 8 3	1,394 7 7	1,922 18 5	854 0 0
Subscriptions, Legacies, &c.	35 19 6	—	149 1 3	22 11 6	32 10 0
County and Borough Rates	108 18 7	54 15 9	135 0 4	—	82 14 4
Education Authority Rates	732 0 5	1,969 14 5	1,113 19 10	1,759 4 11	1,104 7 1
Parochial Authorities ..	—	—	73 0 0	—	18 16 0
Voluntary Inmates	—	—	—	32 0 0	68 1 5
Hire of Labour	—	29 8 5	—	—	94 6 4
Sundries	21 18 3	—	—	26 0 0	105 17 2
Total Receipts ..	1,540 4 7	4,707 6 10	2,865 9 0	3,762 14 10	2,360 12 4
Expenditure.					
Officers' Salaries and Allowances.	353 6 0	998 1 1	1,061 2 6	729 12 0	393 17 0
Food of Inmates	427 19 6	1,416 3 7	816 7 11	1,324 16 10	396 6 11
Clothing	152 16 7	810 18 2	256 4 10	554 4 7	458 0 0
Washing, Fuel, Light, and Furniture.	199 13 5	351 4 2	421 1 7	255 9 6	339 17 6
Repairs, Rates, and Taxes ..	118 13 0	540 19 7	205 0 3	355 5 7	209 5 0
Printing and Office Expenses	89 3 8	60 10 1	51 12 10	53 17 9	109 16 11
Travelling and Police ..	7 16 7	11 13 3	—	3 16 8	19 6 0
Medical Expenses and Funerals.	35 2 0	99 12 3	51 10 3	96 14 7	37 13 7
Sundries	95 8 2	180 1 9	—	107 9 9	46 8 3
Total Ordinary Charges	1,479 18 11	4,469 3 11	2,863 0 2	3,481 7 3	2,510 11 2
Cost per Head for Maintenance and Management.	18 10 0	16 14 9	19 9 6	17 11 8	23 18 2
Ditto Food	5 7 0	5 6 1	5 11 1	6 13 10	3 15 6
Ditto Clothing	1 18 2	3 0 9	1 14 10	2 16 0	4 7 3
Extra Charges.					
Rent of School and Interest	—	59 9 7	100 0 0	106 8 0	467 10 0
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	56 0 0	79 18 6	—	102 8 6	26 10 0
„ Emigration ..	12 0 0	11 17 6	—	—	40 14 7
Building & Capital Account	36 5 0	134 0 0	—	198 4 0	49 1 1
Total Extra Charges ..	104 5 0	285 5 7	100 0 0	407 0 6	583 15 8
Total Expenditure	1,584 3 11	4,754 9 6	2,963 0 2	3,888 7 9	3,094 6 10
Industrial Departments.					
Profit	—	401 16 10	310 19 2	127 11 2	124 17 10
Loss	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*

St. Anne's, (Ro. Cath.) Girls. No. 144. Officers, 24.	St. Elizabeth's, (Ro. Cath.) Girls. No. 94. Officers, 14.	Falkner* Street, (Ro. Cath.) Girls. No. . Officers, .	Black-brook House, (Ro. Cath.) Girls. No. 110. Officers, 10.	Desford, Boys. No. 198. Officers, 18.	Receipts and Expenditure.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
1,356 9 11	859 19 3	112 14 6	804 8 7	1,594 9 6	Treasury Grant.
107 10 0	—	—	—	—	Subscriptions, Legacies, &c.
7 3 5	—	—	5 4 2	86 6 7	County and Borough Rates.
1,153 13 5	795 11 5	—	870 15 1	3,220 13 8	Education Authority Rates.
—	—	—	—	91 2 5	Parochial Authorities.
14 1 6	—	—	61 0 0	—	Voluntary Inmates.
—	—	—	—	—	Hire of Labour.
106 1 11	—	—	—	126 11 5	Sundries.
2,745 0 2	1,691 10 8	112 14 6	1,741 7 10	5,119 3 7	TOTAL RECEIPTS.
					EXPENDITURE.
736 11 6	404 12 9	—	250 0 0	1,193 2 2	Officers' Salaries and Allowances.
975 3 5	546 11 4	—	511 18 4	1,097 18 5	Food of Inmates.
351 16 0	182 5 3	—	300 13 8	562 4 8	Clothing.
344 10 7	160 2 8	—	96 10 11	700 3 0	Washing, Fuel, Light, and Furniture.
230 6 1	257 13 11	—	136 14 3	425 2 9	Repairs, Rates, and Taxes.
43 7 1	26 0 7	—	69 15 6	351 5 11	Printing and Office Expenses.
19 10 9	—	—	1 12 2	54 14 5	Travelling and Police.
69 9 8	24 17 11	—	40 19 7	124 10 2	Medical Expenses and Funerals.
67 14 10	89 0 11	—	42 17 10	225 4 1	Sundries.
2,838 9 11	1,691 5 4	—	1,451 2 3	4,734 5 8	Total Ordinary Charges.
19 14 3	17 19 10	—	13 3 10	23 18 3	Cost per Head for Maintenance and Management.
6 15 5	5 16 3	—	4 13 1	5 10 11	Ditto Food.
2 8 10	1 18 9	—	2 14 8	2 16 9	Ditto Clothing.
					Extra Charges.
154 19 3	—	—	80 0 0	—	Rent of School and Interest.
43 0 0	—	—	—	18 12 1	„ Farm Premises.
116 16 2	38 10 0	—	48 0 0	199 14 0	Disposal, Home Service.
—	20 0 0	—	12 0 0	30 16 4	„ Emigration.
—	—	—	67 8 6	345 12 1	Building & Capital Account.
314 15 5	58 10 0	—	207 8 6	594 14 6	Total Extra Charges.
3,153 5 4	1,749 15 4	—	1,658 10 9	5,329 0 2	TOTAL EXPENDITURE.
					Industrial Departments.
233 8 0	11 9 9	—	—	—	Profit.
—	—	—	—	50 19 3	Loss.

* Certificate resigned early in 1906. No returns received.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Feltham, Boys.	Boys' Home, Boys.	Field Lane, Boys.	Hayes, Boys.	Elm House, Girls.
	No. 546. Officers, 62.	No. 135. Officers, 18.	No. 102. Officers, 14.	No. 56. Officers, 11.	No. 39. Officers, 4.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	4,958 12 5	1,238 12 3	989 2 8	463 11 0	380 9 7
Subscriptions, Legacies, &c.	—	2,759 3 0	—	548 3 0	79 13 0
County and Borough Rates	14,082 11 5	1,648 11 7	1,496 9 10	92 13 3	361 17 10
Education Authority Rates	—	—	—	957 18 1	59 14 9
Parochial Authorities ..	—	—	—	—	—
Voluntary Inmates	†188 3 9	—	36 8 0	20 10 0	—
Hire of Labour..	28 13 11	98 6 6	—	—	—
Sundries	—	53 1 3	46 5 9	27 12 11	11 19 5
Total Receipts ..	19,258 1 6	5,797 14 7	2,568 6 3	2,110 8 3	893 14 7
Expenditure.					
Officers' Salaries and Allowances.	5,323 13 9	1,141 5 9	756 16 11	687 16 2	266 13 0
Food of Inmates	3,815 11 9	918 16 2	635 17 9	395 19 5	279 0 11
Clothing	2,697 4 2	371 16 11	532 12 3	208 5 4	49 18 6
Washing, Fuel, Light, and Furniture.	2,141 5 0	730 12 5	498 8 8	268 7 0	144 4 3
Repairs, Rates, and Taxes ..	2,040 18 8	717 10 0	397 9 9	422 13 2	56 12 7
Printing and Office Expenses	353 2 0	319 16 0	96 4 4	219 10 7	21 14 3
Travelling and Police ..	42 9 6	55 14 7	23 17 3	21 13 5	9 7 5
Medical Expenses and Funerals.	470 14 4	120 12 9	56 0 5	69 11 1	28 16 3
Sundries	1,204 9 8	313 18 9	37 14 1	93 9 5	14 15 0
Total Ordinary Charges	18,089 8 10	4,690 3 4	3,035 1 5	2,387 5 7	871 2 2
Cost per Head for Maintenance and Management.	33 2 7	34 14 10	29 15 2	42 12 7	22 6 9
Ditto Food	6 19 9	6 16 1	6 4 8	7 1 5	7 3 1
Ditto Clothing	4 18 10	2 15 1	5 4 5	3 14 5	1 5 7
Extra Charges.					
Rent of School and Interest	—	437 0 0	—	—	—
„ Farm Premises ..	—	—	—	11 0 6	—
Disposal, Home Service ..	1,762 0 6	125 16 5	86 3 3	46 5 4	—
„ Emigration ..	—	10 8 2	36 0 0	154 16 11	—
Building & Capital Account	—	—	—	172 10 3	—
Total Extra Charges ..	1,762 0 6	573 4 7	122 3 3	384 13 0	—
Total Expenditure	19,851 9 4	5,263 7 11	3,157 4 8	2,771 18 7	871 2 2
Industrial Departments.					
Profit	151 10 1	85 6 2	489 10 10	—	—
Loss	—	—	—	71 8 9	—

† Parents' payments for boys under Middlesex Act.

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*					
MAURICE, GIRLS' HOME, Girls. No. 27. Officers, 3.	KING EDWARD, Girls. No. 94. Officers, 9.	GORDON HOUSE, Girls. No. 70. Officers, 10.	NAZARETH HOUSE, (Ro. Cath.) Girls. No. 105. Officers, 11.	STAMFORD HILL,[2] Girls. No. . Officers, 4.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
65 18 7	925 10 8	572 14 6	860 13 7	38 11 2	Treasury Grant.
311 6 0	53 4 6	—	—	2,277 2 9	Subscriptions, Legacies, &c.
149 0 3	243 12 6	1,637 5 11	1,093 0 10	52 10 0	County and Borough Rates.
—	912 13 6	—	—	—	Education Authority Rates.
—	—	—	—	—	Parochial Authorities.
—	—	—	50 0 0	31 1 0	Voluntary Inmates.
14 14 8	—	—	—	—	Hire of Labour.
46 7 0	—	45 18 4	—	—	Sundries.
567 6 6	2,135 1 2	2,255 18 9	2,003 14 5	2,399 4 11	TOTAL RECEIPTS.
					EXPENDITURE.
148 15 0	582 13 1	736 2 5	210 15 0	350 0 8	Officers' Salaries and Allowances.
104 3 3	556 8 0	481 13 2	690 16 5	56 7 9	Food of Inmates.
44 10 3	280 15 0	134 0 2	311 12 4	51 10 3	Clothing.
69 14 0	230 12 11	272 12 9	359 14 8	331 12 4	Washing, Fuel, Light, and Furniture.
37 19 11	236 8 8	390 8 7	319 16 2	121 18 2	Repairs, Rates, and Taxes.
20 11 3	57 1 6	43 4 5	92 17 8	142 1 7	Printing and Office Expenses.
1 10 11	42 2 11	14 14 6	12 3 4	9 7 3	Travelling and Police.
—	62 4 10	76 7 9	72 1 9	1 12 6	Medical Expenses and Funerals.
14 12 10	125 3 5	24 7 6	36 15 0	64 12 3	Sundries.
501 17 5	2,173 10 4	2,173 11 3	2,106 12 4	1,129 2 9	Total Ordinary Charges.
18 11 9	23 2 5	31 1 0	20 1 3	—	Cost per Head for Maintenance and Management.
6 1 7	5 18 5	6 17 7	6 11 7	—	Ditto Food.
1 13 0	2 19 9	1 18 3	2 19 4	—	Ditto Clothing.
					Extra Charges.
25 16 0	—	—	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
30 0 0	78 0 0	42 7 6	50 15 0	8 12 8	Disposal, Home Service.
—	—	—	—	—	„ Emigration.
—	—	40 0 0	—	961 8 9	Building & Capital Account.
55 16 0	78 0 0	82 7 6	50 15 0	970 1 5	Total Extra Charges.
567 13 5	2,251 10 4	2,255 18 9	2,157 7 4	2,099 4 2	TOTAL EXPENDITURE.
					Industrial Departments.
22 19 6	—	—	—	—	Profit.
—	—	—	—	—	Loss.

[2] School opened during 1906.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

ENGLAND—*continued.*

Receipts and Expenditure.	Buxton, Boys. No. 66. Officers, 11.	Newcastle, Boys & Girls. No. 143. Officers, 17.	Northumberland Village Homes, Girls. No. 110. Officers, 14.	Plainmellor, Girls. No. 22. Officers, 2.	Ashburton House,† (Ro. Cath.) Girls. No. . Officers, .
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	495 14 10	1,432 6 6	366 3 0	200 19 3	516 2 9
Subscriptions, Legacies, &c.	1,453 14 6	91 17 9	446 16 2	26 11 9	98 11 9
County and Borough Rates	448 8 3	—	59 14 3	58 17 4	179 6 2
Education Authority Rates	305 10 9	675 6 11	303 9 7	102 6 5	359 6 7
Parochial Authorities ..	37 4 0	—	996 8 10	—	—
Voluntary Inmates	5 7 1	—	102 17 9	—	168 12 0
Hire of Labour..	—	—	—	—	—
Sundries	2 0 6	780 13 8	155 0 0	36 17 8	—
Total Receipts ..	2,747 19 11	2,980 4 10	2,430 9 7	425 12 5	1,321 19 3
Expenditure.					
Officers' Salaries and Allowances.	654 17 10	1,456 7 0	695 12 4	102 14 9	151 10 0
Food of Inmates	408 19 10	700 7 3	711 15 4	166 0 3	544 19 5
Clothing	186 18 9	424 17 9	321 1 5	39 18 0	293 18 10
Washing, Fuel, Light, and Furniture.	196 13 3	360 1 3	724 7 9	42 8 7	234 7 11
Repairs, Rates, and Taxes ..	158 15 6	276 11 4	307 8 7	7 7 10	79 14 2
Printing and Office Expenses	33 3 5	80 2 5	162 8 10	34 14 10	31 13 8
Travelling and Police ..	5 0 2	4 19 2	20 6 5	5 4 0	54 0 0
Medical Expenses and Funerals.	84 6 8	68 1 11	54 17 9	—	23 13 11
Sundries	4 15 0	60 7 4	52 14 7	6 3 0	22 0 8
Total Ordinary Charges	1,733 10 5	3,431 15 5	3,050 13 0	404 11 3	1,435 18 7
Cost per Head for Maintenance and Management.	26 5 4	24 0 0	27 14 8	18 7 9	—
Ditto Food	6 3 11	4 17 11	6 9 5	7 10 11	—
Ditto Clothing	2 16 8	2 19 5	2 18 5	1 16 3	—
Extra Charges.					
Rent of School and Interest	52 9 6	—	—	12 10 0	97 15 0
„ Farm Premises ..	52 0 0	—	—	—	—
Disposal, Home Service ..	76 5 5	98 0 0	116 13 0	8 15 0	60 0 0
„ Emigration ..	—	—	—	—	—
Building & Capital Account	—	151 2 0	14 10 0	—	—
Total Extra Charges ..	180 14 11	249 2 0	131 3 0	21 5 0	157 15 0
Total Expenditure	1,914 5 4	3,680 17 5	3,181 16 0	425 16 3	1,593 13 7
Industrial Departments.					
Profit	—	722 3 8	668 13 10	4 2 0	288 5 3
Loss	4 17 1	—	—	—	—

† School closed during the year.

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*

Elswick, (Ro. Cath.) Boys. No. 69. Officers, 10.	Shipton-under-Wychwood, Girls. No. 34. Officers, 5.	Somerset, Boys. No. 177. Officers, 19.	Bath, Girls. No. 81. Officers, 6.	Cannington, (Ro. Cath.) Boys. No. 96. Officers, 10.	Receipts and Expenditure.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Receipts.
491 0 9	167 18 5	1,726 5 2	855 0 11	1,007 17 2	Treasury Grant.
120 0 0	319 13 8	—	12 8 6	377 18 1	Subscriptions, Legacies, &c.
70 8 2	127 16 10	754 9 5	221 16 0	96 19 5	County and Borough Rates.
409 7 0	65 13 9	1,127 12 6	578 15 3	875 19 1	Education Authority Rates.
5 4 0	11 9 11	—	—	108 8 0	Parochial Authorities.
82 6 8	6 0 0	—	—	—	Voluntary Inmates.
24 3 4	—	381 12 10	—	85 9 8	Hire of Labour.
—	—	—	5 14 0	—	Sundries.
1,202 9 11	698 12 7	3,989 19 11	1,673 14 8	2,552 11 5	Total Receipts.
					Expenditure.
395 0 0	190 0 4	917 18 5	310 15 2	638 19 2	Officers' Salaries and Allowances.
357 2 9	158 2 0	1,314 0 1	489 0 4	596 8 11	Food of Inmates.
181 4 5	29 5 8	779 0 5	199 14 11	320 8 10	Clothing.
101 16 7	78 0 10	549 15 9	241 6 7	190 12 4	Washing, Fuel, Light, and Furniture.
50 2 4	18 4 0	322 12 11	101 14 7	87 0 7	Repairs, Rates and Taxes.
7 16 0	8 16 1	101 7 8	64 6 7	86 18 4	Printing and Office Expenses.
—	6 1 4	9 5 10	33 7 1	23 10 10	Travelling and Police.
20 0 0	27 19 5	87 10 11	32 2 0	20 3 1	Medical Expenses and Funerals.
9 4 0	49 16 10	269 8 10	44 8 11	52 17 1	Sundries.
1,122 6 1	566 6 6	4,351 0 10	1,516 16 2	2,016 19 2	Total Ordinary Charges
16 5 4	16 13 2	24 11 8	18 14 6	21 0 2	Cost per Head for Maintenance and Management.
5 3 6	4 13 0	7 8 6	6 0 9	6 4 3	Ditto Food.
2 12 6	0 17 3	4 8 0	2 9 4	3 6 9	Ditto Clothing.
					Extra Charges.
100 0 0	—	125 0 0	119 0 0	100 0 0	Rent of School and Interest.
—	—	80 0 0	—	—	„ Farm Premises.
20 0 0	15 1 7	183 7 6	129 13 11	119 10 7	Disposal, Home Service.
—	—	4 11 10	—	—	„ Emigration.
—	117 4 6	—	—	537 2 9	Building & Capital Account.
120 0 0	132 6 1	392 19 4	248 13 11	756 13 4	Total Extra Charges.
1,242 6 1	698 12 7	4,744 0 2	1,765 10 1	2,773 12 6	Total Expenditure.
					Industrial Departments
38 4 6	—	1,013 7 1	188 16 11	255 7 3	Profit.
—	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Stafford, Boys. No. 127. Officers, 18.	Stafford, Girls. No. 52. Officers, 6.	Standon Bridge, Boys. No. 88. Officers, 14.	Walsham-le-Willows, Boys. No. 38. Officers, 5.	Mayford, Boys. No. 177. Officers, 19.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,422 5 6	416 9 0	221 17 8	231 3 0	1,497 19 6
Subscriptions, Legacies, &c.	—	—	1,306 2 0	207 2 2	—
County and Borough Rates	2,324 2 3	549 16 6	127 1 0	309 1 6	3,711 4 3
Education Authority Rates	26 19 1	461 0 11	89 14 11	24 13 1	14 8 11
Parochial Authorities ..	31 5 7	—	15 0 9	13 14 0	—
Voluntary Inmates	—	—	83 17 0	13 3 0	—
Hire of Labour..	—	—	—	—	—
Sundries	2 18 0	—	—	—	—
Total Receipts ..	3,807 10 5	1,427 6 5	1,843 13 4	798 16 9	5,223 12 8
Expenditure.					
Officers' Salaries and Allowances.	1,185 15 4	374 15 9	453 13 7	256 0 0	1,578 18 6
Food of Inmates	682 0 6	281 16 8	614 8 1	214 17 11	1,241 9 4
Clothing	410 2 7	144 6 11	200 0 4	66 7 11	512 15 1
Washing, Fuel, Light, and Furniture.	494 12 10	199 19 2	259 16 10	66 18 4	673 14 6
Repairs, Rates, and Taxes ..	101 17 10	147 0 8	76 13 0	53 12 3	558 5 3
Printing and Office Expenses	73 1 8	29 4 10	26 13 19	17 13 9	67 7 1
Travelling and Police ..	20 14 4	8 8 7	19 0 8	8 6 1	36 0 7
Medical Expenses and Funerals.	85 8 4	47 12 1	38 7 7	20 7 3	173 0 4
Sundries	119 1 10	23 10 3	36 7 7	11 5 1	233 1 4
Total Ordinary Charges	3,152 15 3	1,256 14 11	1,725 1 6	714 8 7	5,074 12 0
Cost per Head for Maintenance and Management.	24 16 6	24 3 4	19 12 1	18 16 0	28 13 5
Ditto Food	5 7 5	5 8 5	6 19 8	5 13 1	7 0 3
Ditto Clothing	3 4 7	2 15 6	2 5 5	1 14 11	2 17 11
Extra Charges.					
Rent of School and Interest	—	—	40 15 6	35 8 9	—
„ Farm Premises ..	6 0 0	—	83 10 0	17 7 6	—
Disposal, Home Service ..	113 17 9	80 0 0	114 14 0	17 19 5	145 7 2
„ Emigration ..	—	—	50 19 10	45 5 9	29 0 0
Building & Capital Account	449 2 3	90 11 6	30 0 0	—	—
Total Extra Charges ..	569 0 0	170 11 6	319 19 4	116 1 5	174 7 2
Total Expenditure	3,721 15 3	1,427 6 5	2,045 0 10	830 10 0	5,248 19 2
Industrial Departments.					
Profit	—	—	91 1 8	17 2 2	—
Loss	100 7 11	—	—	—	56 8 8

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*					Receipts and Expenditure.
Clapham Park, Boys. No. 30. Officers, 6.	Princess Mary Village Homes, Girls. No. 179. Officers, 30.	St. Mary's, W. Croydon (Ro. Cath.) Girls. No. 150. Officers, 10.	Portslade, Boys. No. 93. Officers, 17.	Shustoke, Boys. No. 136. Officers, 19.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Receipts.
140 7 9	1,373 3 10	1,542 8 3	791 19 3	1,779 14 0	Treasury Grant.
—	2,826 10 10	—	—	—	Subscriptions, Legacies, &c.
939 3 2	408 12 5	1,738 6 9	34 11 11	2,406 3 6	County and Borough Rates.
—	809 18 11	—	2,650 0 0	—	Education Authority Rates.
—	469 14 9	—	—	—	Parochial Authorities.
—	21 5 0	—	—	—	Voluntary Inmates.
—	—	—	—	10 10 0	Hire of Labour.
29 0 0	—	—	32 9 6	172 11 5	Sundries.
1,108 10 11	5,909 5 9	3,280 15 0	3,509 0 8	4,368 18 11	Total Receipts.
					Expenditure.
353 17 11	1,304 7 7	347 0 0	1,115 15 5	1,498 13 2	Officers' Salaries and Allowances.
169 4 5	1,006 17 11	1,320 0 0	668 15 4	653 12 1	Food of Inmates.
42 14 7	451 7 5	303 17 9	289 4 9	374 14 11	Clothing.
194 1 4	634 4 9	298 4 4	411 15 8	723 0 1	Washing, Fuel, Light, and Furniture.
108 16 5	443 0 9	394 9 8	557 15 7	575 15 0	Repairs, Rates, and Taxes.
31 7 5	366 19 11	39 15 0	189 4 0	143 4 9	Printing and Office Expenses.
6 6 1	57 3 9	47 10 0	5 6 1	54 16 8	Travelling and Police.
35 2 11	51 10 2	48 10 0	93 9 9	91 2 0	Medical Expenses and Funerals.
7 9 10	35 3 3	16 0 0	96 1 11	108 0 5	Sundries.
949 0 11	4,350 15 6	2,815 6 9	3,427 8 6	4,222 19 1	Total Ordinary Charges.
31 12 8	24 6 1	18 15 5	36 17 1	31 1 0	Cost per Head for Maintenance and Management.
5 12 10	5 12 6	8 16 0	7 3 10	4 16 1	Ditto Food.
1 8 6	2 10 5	2 0 6	3 2 2	2 15 1	Ditto Clothing.
					Extra Charges.
—	116 17 11	230 0 0	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
—	96 0 0	68 0 0	29 13 10	267 19 11	Disposal, Home Service.
—	—	—	76 10 0	—	„ Emigration.
159 10 0	378 0 0	215 2 0	—	—	Building & Capital Account.
159 10 0	590 17 11	513 2 0	106 3 10	267 19 11	Total Extra Charges.
1,108 10 11	4,941 13 5	3,328 8 9	3,533 12 4	4,490 19 0	Total Expenditure.
					Industrial Departments.
—	41 13 1	—	—	215 15 10	Profit.
—	—	—	55 10 1	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued.*				
	Harborne, Boys. No. 141. Officers, 13.	Coventry, Girls. No. 47. Officers, 6.	Salisbury, (Ro. Cath.) Girls. No. 104. Officers, 13.	Hull, Girls. No. 45. Officers, 6.	"Southampton," Boys. No. 196. Officers, 18.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	1,421 6 6	421 0 10	680 1 11	350 3 4	1,792 3 0
Subscriptions, Legacies, &c.	82 18 6	39 0 0	224 17 0	—	67 16 0
County and Borough Rates	1,048 13 11	231 15 9	115 3 5	21 1 7	513 16 9
Education Authority Rates	213 4 10	245 5 7	303 10 1	655 11 8	1,192 16 7
Parochial Authorities ..	6 4 0	100 12 8	70 10 7	—	611 8 2
Voluntary Inmates	14 7 1	24 8 0	68 2 0	—	44 4 0
Hire of Labour..	16 3 0	—	—	—	—
Sundries	10 8 7	107 19 8	—	22 10 0	178 11 11
Total Receipts ..	2,813 10 5	1,170 2 6	1,462 5 0	1,049 6 7	4,400 16 5
Expenditure.					
Officers' Salaries and Allowances.	886 10 6	303 0 8	345 15 0	299 13 7	1,587 1 10
Food of Inmates	708 16 8	307 18 3	717 16 10	286 4 11	1,023 0 11
Clothing	360 16 4	160 7 6	212 14 11	126 3 4	666 14 4
Washing, Fuel, Light, and Furniture.	474 15 1	134 11 7	375 10 6	166 8 9	173 7 5
Repairs, Rates, and Taxes ..	150 13 9	81 0 8	118 13 11	176 19 5	614 19 10
Printing and Office Expenses	193 2 7	33 3 11	48 10 5	5 9 4	203 18 4
Travelling and Police ..	54 11 9	11 18 7	35 17 5	1 11 8	53 7 10
Medical Expenses and Funerals.	56 3 8	30 1 2	35 3 11	25 4 0	173 0 9
Sundries	30 12 6	54 10 0	27 19 2	5 17 2	157 1 1
Total Ordinary Charges	2,916 2 10	1,116 12 4	1,918 2 1	1,073 12 2	4,652 12 4
Cost per Head for Maintenance and Management.	20 13 8	23 15 2	18 8 10	23 17 2	23 14 9
Ditto Food	5 0 7	6 11 0	6 18 1	5 18 4	5 4 5
Ditto Clothing	2 11 2	3 8 3	2 0 11	2 16 1	3 8 0
Extra Charges.					
Rent of School and Interest	—	19 0 0	10 2 8	—	—
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	50 15 0	34 9 9	52 0 0	2 10 0	72 17 7
„ Emigration ..	24 0 0	—	6 0 0	—	—
Building & Capital Account	—	—	—	—	—
Total Extra Charges ..	74 15 0	53 9 9	68 2 8	2 10 0	72 17 7
Total Expenditure	2,990 17 10	1,170 2 1	1,986 4 9	1,076 2 2	4,725 9 11
Industrial Departments.					
Profit	177 2 5	—	534 2 10	37 7 5	71 18 5
Loss	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

ENGLAND—*continued.*

LEEDS, Boys. No. 170. Officers, 18.	THORP-ARCH, Girls. No. 98. Officers, 13.	LEEDS, Girls. No. 68. Officers, 6.	YORK, Boys. No. 120. Officers, 15.	YORK, Girls. No. 49. Officers, 5.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
1,332 8 7	776 9 2	690 12 1	1,411 15 5	567 16 2	Treasury Grant.
—	—	—	20 14 0	102 10 3	Subscriptions, Legacies, &c.
242 7 4	292 12 4	189 16 9	224 13 3	289 3 2	County and Borough Rates.
2,211 12 2	1,468 3 9	344 3 9	742 4 11	189 14 5	Education Authority Rates.
78 4 4	—	—	—	6 7 0	Parochial Authorities.
12 15 9	2 4 0	—	—	—	Voluntary Inmates.
26 1 0	—	—	192 7 9	5 19 9	Hire of Labour.
3 1 6	9 17 9	89 2 3	—	28 12 6	Sundries.
3,906 10 8	2,549 7 0	1,313 14 10	2,591 15 4	1,190 3 3	TOTAL RECEIPTS.
					EXPENDITURE.
1,065 4 5	571 13 4	278 5 0	706 12 2	286 19 10	Officers' Salaries and Allowances.
812 18 0	509 12 5	356 5 9	614 0 3	261 2 4	Food of Inmates.
562 9 9	338 14 8	132 2 6	403 18 3	163 16 5	Clothing.
802 3 11	634 0 7	245 3 4	208 4 10	111 1 1	Washing, Fuel, Light, and Furniture.
339 13 8	235 6 7	154 12 2	188 5 6	104 7 9	Repairs, Rates, and Taxes.
158 7 2	92 6 6	23 13 2	51 3 7	23 0 2	Printing and Office Expenses.
12 10 4	52 17 0	3 2 8	19 12 11	10 5 6	Travelling and Police.
65 5 4	40 6 11	18 12 4	57 17 6	7 0 5	Medical Expenses and Funerals.
76 8 3	42 17 11	91 13 8	96 0 6	34 0 4	Sundries.
3,883 0 10	2,517 15 11	1,303 10 7	2,346 4 6	1,001 13 10	Total Ordinary Charges.
22 18 0	25 13 10	19 3 5	19 11 0	20 8 10	Cost per Head for Maintenance and Management.
4 15 8	5 4 0	5 4 9	5 2 4	5 6 7	Ditto Food.
3 6 2	3 9 2	1 18 10	3 7 4	3 6 10	Ditto Clothing.
					Extra Charges.
—	—	-	5 9 11	30 8 0	Rent of School and Interest.
33 9 0	—	—	—	—	„ Farm Premises.
32 9 0	41 12 2	22 17 5	55 0 6	79 8 1	Disposal, Home Service.
118 19 6	24 2 10	—	—	—	„ Emigration.
82 2 0	125 14 0	—	—	—	Building & Capital Account
266 19 6	191 9 0	22 17 5	60 10 5	109 16 1	Total Extra Charges.
4,150 0 4	2,709 4 11	1,326 8 0	2,406 14 11	1,111 9 11	TOTAL EXPENDITURE.
					Industrial Departments.
321 12 4	281 19 6	154 5 7	105 14 8	78 0 8	Profit.
—	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools. Return of Receipts

Receipts and Expenditure.	ENGLAND—*continued*				SCOTLAND.
	Middlesbrough, Boys.	Shibden, (Ro. Cath.) Boys.	Yorkshire, (Ro. Cath.) Girls.	Beckett Home, Girls.	Aberdeen. Boys.
	No. 60. Officers, 8.	No. 148. Officers, 24.	No. 83. Officers, 11.	No. 30. Officers, 4.	No. 123. Officers, 13.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	511 15 5	1,276 11 11	609 11 1	188 4 3	1,419 16 4
Subscriptions, Legacies, &c.	—	23 3 6	176 7 0	54 7 5	33 9 9
County and Borough Rates	63 16 7	628 0 1	113 5 10	220 9 2	613 4 5
Education Authority Rates	653 11 2	1,219 19 9	477 5 2	81 11 7	10 8 0
Parochial Authorities ..	9 3 0	19 11 1	18 0 0	—	18 4 0
Voluntary Inmates	60 2 6	—	177 3 5	10 8 0	—
Hire of Labour..	73 8 1	—	—	—	—
Sundries	12 5 0	6 18 0	0 7 6	—	—
Total Receipts ..	1,384 1 9	3,174 4 4	1,572 0 0	555 0 5	2,095 2 6
Expenditure.					
Officers' Salaries and Allowances.	383 4 2	757 17 0	376 16 10	199 9 2	671 14 10
Food of Inmates	352 4 3	861 15 5	793 9 11	127 3 9	584 4 2
Clothing	199 0 11	456 7 0	171 0 5	20 15 10	414 19 3
Washing, Fuel, Light, and Furniture.	233 11 11	453 11 6	275 9 4	59 12 8	243 19 0
Repairs, Rates, and Taxes ..	93 17 11	411 16 7	128 15 10	80 4 0	204 10 5
Printing and Office Expenses	44 9 9	81 18 9	39 1 7	3 19 2	139 3 9
Travelling and Police ..	—	12 15 8	32 14 3	1 5 8	5 5 5
Medical Expenses and Funerals.	23 14 5	52 19 1	45 13 3	2 7 5	25 2 1
Sundries	7 5 4	33 13 1	128 7 1	45 2 9	23 12 9
Total Ordinary Charges	1,337 8 8	3,122 14 1	1,991 8 6	540 0 5	2,312 11 8
Cost per Head for Maintenance and Management.	22 5 10	21 2 0	23 19 10	18 0 0	18 16 0
Ditto Food	5 17 5	5 16 5	9 11 2	4 4 9	4 15 0
Ditto Clothing	3 6 4	3 1 8	2 1 3	0 13 10	3 7 6
Extra Charges.					
Rent of School and Interest	—	195 16 1	—	—	45 15 2
„ Farm Premises ..	—	29 8 0	—	—	—
Disposal, Home Service ..	—	103 12 8	49 5 7	15 0 0	48 1 7
„ Emigration ..	—	182 8 0	—	—	16 3 6
Building & Capital Account	100 4 2	53 10 5	—	—	—
Total Extra Charges ..	100 4 2	564 15 2	49 5 7	15 0 0	110 0 3
Total Expenditure	1,437 12 10	3,687 9 3	2,040 14 1	555 0 5	2,422 11 11
Industrial Departments.					
Profit	163 19 10	303 17 5	164 16 10	—	267 18 3
Loss	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

SCOTLAND—*continued.*

ABERDEEN FEMALE, Girls. No. 58. Officers, 6.	ABERDEEN, (Ro. Cath.) Girls. No. 130. Officers, 9.	AYR, Boys. No. 97. Officers, 8.	AYR, Girls. No. 58. Officers, 5.	KILMARNOCK, Boys and Girls. No. 104. Officers, 10.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
574 1 2	1,106 3 2	1,160 9 7	653 12 3	1,278 15 0	Treasury Grant.
52 2 0	—	89 18 4	44 19 2	95 1 6	Subscriptions, Legacies, &c.
401 16 8	113 8 4	33 6 8	16 13 4	91 10 10	County and Borough Rates.
7 9 10	—	52 12 6	115 17 2	50 9 0	Education Authority Rates.
—	—	—	—	—	Parochial Authorities.
18 17 0	—	—	—	—	Voluntary Inmates.
—	—	91 3 0	—	93 16 8	Hire of Labour.
117 0 0	—	—	—	50 6 0	Sundries.
1,171 6 8	1,219 11 6	1,427 10 1	831 1 11	1,659 19 0	TOTAL RECEIPTS.
					EXPENDITURE.
299 3 6	36 10 0	473 14 1	282 11 0	416 1 11	Officers' Salaries and Allowances.
271 7 5	593 14 2	408 15 2	228 3 11	620 19 0	Food of Inmates.
110 0 5	350 19 0	338 2 9	142 14 0	330 0 9	Clothing.
115 19 4	300 17 10	182 8 2	153 4 4	267 16 2	Washing, Fuel, Light, and Furniture.
69 1 0	114 6 8	175 7 6	93 19 0	58 7 0	Repairs, Rates, and Taxes.
51 17 1	60 11 3	47 7 11	41 2 7	26 4 1	Printing and Office Expenses.
10 9 3	—	—	9 16 0	9 18 0	Travelling and Police.
24 7 7	18 11 7	9 7 8	12 12 1	19 5 1	Medical Expenses and Funerals.
30 5 11	50 17 8	14 1 4	15 3 11	16 10 0	Sundries.
982 11 6	1,526 8 2	1,649 4 7	979 6 10	1,765 2 0	Total Ordinary Charges.
16 18 10	11 14 10	17 0 1	16 17 8	16 19 5	Cost per Head for Maintenance and Management.
4 13 7	4 11 4	4 4 3	3 18 8	5 19 5	Ditto Food.
1 17 11	2 14 0	3 9 9	2 9 2	3 3 6	Ditto Clothing.
					Extra Charges.
117 0 0	85 2 8	99 15 0	—	40 16 9	Rent of School and Interest
—	—	—	—	—	„ Farm Premises.
27 0 0	170 13 6	—	21 2 6	58 15 4	Disposal, Home Service.
—	—	—	—	—	„ Emigration.
—	1,800 0 0	62 6 10	—	108 14 5	Building & Capital Account.
144 0 0	2,055 16 2	162 1 10	21 2 6	208 6 6	Total Extra Charges.
1,126 11 6	3,582 4 4	1,811 6 5	1,000 9 4	1,973 8 6	TOTAL EXPENDITURE.
					Industrial Departments.
—	—	358 9 4	18 8 1	259 7 3	Profit.
—	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	SCOTLAND—*continued.*				
	"Empress," Boys.	Dumfries, Boys.	Edinburgh (Original), Boys & Girls.	Leith, Boys.	Leith, Girls.
	No. 392. Officers, 22.	No. 100. Officers, 10	No. 269. Officers, 22.	No. 133. Officers, 10.	No. 60. Officers, 5.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	5,785 1 10 *54 15 0	1,150 1 6	3,019 13 2	1,447 3 10	687 1 8
Subscriptions, Legacies, &c.	602 0 7	258 6 9	623 6 4	263 13 9	72 15 8
County and Borough Rates	859 3 6	104 3 5	100 0 0	60 0 0	40 0 0
Education Authority Rates	—	115 8 7	153 10 0	95 8 7	7 16 4
Parochial Authorities ..	—	24 12 0	30 5 6	5 4 0	—
Voluntary Inmates	3 8 6	49 17 0	14 6 5	13 0 0	—
Hire of Labour..	—	163 11 5	107 15 4	—	—
Sundries	507 15 0	54 1 6	38 11 3	66 6 8	—
Total Receipts ..	7,812 4 5	1,920 2 2	4,087 8 0	1,950 16 10	807 13 8
Expenditure.					
Officers' Salaries and Allowances.	2,582 18 7	478 18 0	1,436 4 0	635 16 2	215 10 0
Food of Inmates	2,086 15 10	579 18 8	1,354 10 0	643 4 1	285 3 0
Clothing	966 18 3	350 4 4	772 12 2	322 14 8	134 9 7
Washing, Fuel, Light, and Furniture.	739 3 0	350 4 10	565 17 10	258 19 6	82 15 9
Repairs, Rates, and Taxes ..	477 6 10	190 11 3	448 11 10	201 0 10	45 15 2
Printing and Office Expenses	346 0 2	35 1 6	267 11 3	28 19 3	8 7 2
Travelling and Police ..	114 0 9	19 11 7	20 6 10	0 19 8	5 5 10
Medical Expenses and Funerals.	171 8 6	58 3 2	77 19 4	20 17 1	9 13 4
Sundries	261 9 11	75 2 7	13 8 8	28 14 9	6 8 6
Total Ordinary Charges	7,746 1 10	2,137 15 11	4,957 1 11	2,141 6 0	793 8 4
Cost per Head for Maintenance and Management.	19 15 3	21 7 7	18 8 7	16 2 0	13 4 6
Ditto Food	5 6 6	5 16 0	5 0 8	4 16 9	4 15 1
Ditto Clothing	2 9 4	3 10 1	2 17 5	2 8 6	2 4 10
Extra Charges.					
Rent of School and Interest	40 0 0	70 13 5	158 5 2	—	—
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	123 15 10	35 13 6	132 19 7	92 5 0	35 17 9
„ Emigration ..	—	24 0 0	—	—	—
Building & Capital Account	—	—	—	—	—
Total Extra Charges ..	163 15 10	130 6 11	291 4 9	92 5 0	35 17 9
Total Expenditure	7,909 17 8	2,268 2 10	5,248 6 8	2,233 11 0	829 6 1
Industrial Departments.					
Profit	—	357 16 9	353 10 4	124 7 8	45 7 10
Loss	19 2 4	—	—	—	—

* Admiralty grant for Gunnery Instructor.

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued.*

SCOTLAND—*continued.*					
TRANENT, (Ro. Cath.) Boys. No. 197. Officers, 10.	ARBROATH, Boys. No. 33. Officers, 4.	DUNDEE, Boys. No. 220. Officers, 13.	DUNDEE, Girls. No. 117. Officers, 7.	"MARS," Boys. No. 398. Officers, 29.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
2,225 17 4	336 0 2	2,651 13 9	1,364 19 7	6,076 1 4 *68 11 0	Treasury Grant.
155 0 0	6 10 0	615 7 0	390 18 5	1,033 5 10	Subscriptions, Legacies, &c.
12 9 10	—	22 0 5	—	1,026 14 5	County and Borough Rates.
109 16 9	—	—	—	—	Education Authority Rates.
81 11 10	—	—	—	—	Parochial Authorities.
67 7 8	—	—	—	127 1 11	Voluntary Inmates.
—	4 5 0	391 1 3	—	—	Hire of Labour.
114 13 2	206 3 1	283 19 11	204 9 0	524 14 11	Sundries.
2,766 16 7	552 18 3	3,944 2 4	1,960 7 0	8,856 9 5	TOTAL RECEIPTS.
					EXPENDITURE.
454 8 1	170 10 0	936 12 0	359 1 11	2,953 18 9	Officers' Salaries and Allowances.
1,073 7 10	168 6 2	1,132 1 10	445 10 3	2,260 16 4	Food of Inmates.
321 3 5	79 10 7	368 1 11	241 16 9	794 18 9	Clothing.
94 0 4	54 1 5	512 18 8	220 9 1	409 4 2	Washing, Fuel, Light, and Furniture.
340 15 1	33 14 1	348 10 0	264 16 4	811 8 0	Repairs, Rates and Taxes.
16 5 6	9 6 8	172 18 5	98 11 8	408 4 4	Printing and Office Expenses.
20 9 1	—	—	—	219 0 0	Travelling and Police.
25 11 5	3 14 10	42 1 2	29 14 10	177 14 2	Medical Expenses and Funerals.
10 4 6	5 6 0	147 16 10	44 0 10	176 14 2	Sundries.
2,356 5 3	524 9 9	3,661 0 10	1,704 1 8	8,211 18 8	Total Ordinary Charges.
11 19 3	15 17 10	16 12 10	14 11 4	20 12 8	Cost per Head for Maintenance and Management.
5 9 0	5 2 0	5 2 11	3 16 2	5 13 7	Ditto Food.
1 12 7	2 8 2	1 13 6	2 1 4	1 19 11	Ditto Clothing.
					Extra Charges.
119 17 0	—	—	—	—	Rent of School and Interest.
—	—	—	—	—	„ Farm Premises.
8 9 2	—	—	—	274 16 6	Disposal, Home Service.
36 0 0	—	—	—	—	„ Emigration.
—	—	—	—	—	Building & Capital Account.
164 6 2	—	—	—	274 16 6	Total Extra Charges.
2,520 11 5	524 9 9	3,661 0 10	1,704 1 8	8,486 15 2	TOTAL EXPENDITURE
					Industrial Departments.
64 10 7	4 5 0	288 19 4	71 5 2	—	Profit.
	—	—	—	—	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Receipts and Expenditure.	SCOTLAND—*continued.*				
	Mossbank, Boys. No. 364. Officers, 32.	Maryhill, Girls. No. 210. Officers, 22.	Glasgow (Ro. Cath. Orphanage), Boys. No. 199. Officers, 13.	Glasglow (Ro. Cath. Orphanage), Girls. No. 189. Officers, 14.	Slatefield, (Ro. Cath.) Boys. No. 150. Officers, 11.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	4,152 14 10	2,334 6 6	2,469 9 2	2,229 10 9	1,908 18 11
Subscriptions, Legacies, &c.	—	—	—	—	—
County and Borough Rates	3,391 5 4	2,741 15 0	1,002 19 6	950 0 4	837 5 0
Education Authority Rates	—	—	7 16 0	—	—
Parochial Authorities ..	—	—	—	—	—
Voluntary Inmates	—	—	—	—	—
Hire of Labour..	319 7 1	—	250 6 1	—	—
Sundries	—	—	46 18 6	7 15 0	187 15 7
Total Receipts ..	7,863 7 3	5,076 1 6	3,777 9 3	3,187 6 1	2,933 19 6
Expenditure.					
Officers' Salaries and Allowances.	2,312 3 2	1,126 1 4	754 4 11	459 5 10	594 10 8
Food of Inmates	2,151 9 8	1,221 13 1	1,106 15 7	1,147 16 10	794 3 11
Clothing	1,270 5 0	490 13 8	533 8 11	337 0 0	472 2 8
Washing, Fuel, Light, and Furniture.	1,015 17 1	691 7 8	415 3 1	448 13 4	316 0 7
Repairs, Rates, and Taxes ..	1,074 7 8	473 19 7	200 1 9	272 0 10	514 12 2
Printing and Office Expenses	102 7 7	89 7 2	50 18 2	28 13 4	33 8 9
Travelling and Police ..	73 12 1	67 6 7	53 12 3	21 10 4	81 4 10
Medical Expenses and Funerals.	71 14 0	85 0 4	27 19 4	41 15 10	42 13 1
Sundries	482 1 11	196 5 10	90 14 1	85 15 4	40 19 9
Total Ordinary Charges	8,563 18 2	4,441 15 3	3,232 18 1	2,842 11 8	2,889 16 5
Cost per Head for Maintenance and Management.	23 10 0	21 3 0	16 4 11	15 0 10	19 5 4
Ditto Food	5 18 3	5 16 4	5 11 3	6 1 6	5 5 11
Ditto Clothing	3 9 10	2 6 9	2 13 7	1 15 8	3 2 11
Extra Charges.					
Rent of School and Interest	—	—	907 14 11	400 0 0	43 19 8
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	155 5 5	465 7 6	33 15 6	104 11 1	44 11 2
„ Emigration ..	—	179 0 11	—	—	—
Building & Capital Account	—	—	117 13 9	—	—
Total Extra Charges ..	155 5 5	644 8 5	1,059 4 2	504 11 1	88 10 10
Total Expenditure.	8,709 3 7	5,086 3 8	4,292 2 3	3,347 2 9	2,978 7 3
Industrial Departments.					
Profit	1,021 1 2	—	371 5 2	114 17 3	154 16 2
Loss	—	20 14 3	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1906—*continued*.

SCOTLAND—*continued*.					
DALBETH, (Ro. Cath.) Girls. No. 149. Officers, 11.	PERTH FECHNEY, Boys. No. 142. Officers, 17.	PERTH LADIES', Girls. No. 59. Officers, 5.	PERTH, Girls. No. 56. Officers, 5.	GREENOCK, Boys. No. 130. Officers, 8.	RECEIPTS AND EXPENDITURE.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
1,346 9 7	1,645 3 4	666 8 2	597 5 1	1,449 19 3	Treasury Grant.
—	422 15 0	135 1 11	177 18 6	14 13 0	Subscriptions, Legacies, &c.
907 15 8	70 0 0	40 0 0	40 0 0	277 0 0	County and Borough Rates.
72 16 10	—	—	—	200 0 0	Education Authority Rates.
—	—	—	—	—	Parochial Authorities
—	58 12 6	42 17 6	25 3 0	—	Voluntary Inmates.
—	—	—	—	—	Hire of Labour.
—	125 2 4	165 6 3	43 19 0	6 15 2	Sundries.
2,327 2 1	2,321 13 2	1,049 13 10	884 5 7	1,948 7 5	TOTAL RECEIPTS.
					EXPENDITURE.
489 5 5	703 18 8	199 17 6	210 10 1	404 0 8	Officers' Salaries and Allowances.
1,067 0 1	796 0 2	318 18 3	315 3 9	587 5 5	Food of Inmates.
378 6 3	340 14 0	190 11 1	190 4 2	326 13 7	Clothing.
230 14 10	309 13 0	119 7 3	93 1 8	258 16 5	Washing, Fuel, Light, and Furniture.
208 1 6	276 9 0	172 3 0	41 0 6	134 6 5	Repairs, Rates, and Taxes.
27 18 1	100 14 1	18 16 9	38 17 9	29 8 11	Printing and Office Expenses.
17 18 6	24 5 7	9 13 4	4 18 6	4 18 1	Travelling and Police.
72 19 0	36 3 8	26 6 0	15 7 11	25 18 7	Medical Expenses and Funerals.
60 2 11	46 14 0	1 11 6	7 4 2	59 15 1	Sundries.
2,552 6 7	2,634 12 2	1,057 4 8	916 8 6	1,831 3 2	Total Ordinary Charges.
17 2 7	18 11 1	17 18 5	16 7 4	14 1 9	Cost per Head for Maintenance and Management.
7 3 3	5 12 1	5 8 1	5 12 7	4 10 4	Ditto Food.
2 10 9	2 8 0	3 4 7	3 7 11	2 10 3	Ditto Clothing.
					Extra Charges.
91 10 0	46 18 8	26 7 0	11 17 6	6 5 11	Rent of School and Interest.
—	15 0 0	—	—	—	„ Farm Premises.
60 13 0	123 16 3	75 6 11	137 14 10	—	Disposal, Home Service.
—	8 14 5	—	—	—	„ Emigration.
330 0 0	—	—	—	—	Building & Capital Account.
482 3 0	194 9 4	101 13 11	149 12 4	6 5 11	Total Extra Charges.
3,034 9 7	2,829 1 6	1,158 18 7	1,066 0 10	1,837 9 1	TOTAL EXPENDITURE.
					Industrial Departments.
58 11 10	559 12 6	104 1 5	78 16 3	—	Profit.
—	—	—	—	42 3 5	Loss.

Industrial Schools.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts and Expenditure of, for 1906—*continued.*

Receipts and Expenditure.	SCOTLAND—*continued.*				
	Greenock, Girls.	Paisley, Boys & Girls.	Stirling * Boys.	Stirling, Girls.	Newton Stewart, Girls.
	No. 40. Officers, 4.	No. 144. Officers, 11.	No. . Officers, .	No. 26. Officers, 3.	No. 45. Officers, 3.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	451 4 3	1,768 4 4	66 12 5	248 17 2	511 10 11
Subscriptions, Legacies, &c.	381 1 9	2,716 2 6	—	64 4 4	54 19 11
County and Borough Rates	36 0 0	34 3 0	—	20 0 0	59 11 9
Education Authority Rates	48 0 0	26 3 7	—	—	131 3 10
Parochial Authorities ..	—	—	30 19 1	58 2 11	4 10 10
Voluntary Inmates	—	—	3 5 0	4 1 0	9 8 6
Hire of Labour..	0 15 0	114 17 4	—	—	—
Sundries	—	256 15 0	—	—	89 18 2
Total Receipts ..	917 1 0	4,916 5 9	100 16 6	395 5 5	861 3 11
Expenditure.					
Officers' Salaries and Allowances.	217 1 8	758 4 3	30 4 3	120 0 0	182 10 0
Food of Inmates	263 4 11	656 2 1	3 0 0	117 10 9	250 16 1
Clothing	97 12 9	396 0 4	2 12 0	36 5 5	52 11 10
Washing, Fuel, Light, and Furniture.	82 4 3	374 11 6	8 7 1	35 3 1	38 1 4
Repairs, Rates, and Taxes ..	64 2 11	189 19 9	6 16 4	49 3 3	48 4 9
Printing and Office Expenses	9 6 11	61 10 8	1 9 9	2 15 8	4 16 9
Travelling and Police ..	—	—	—	0 14 9	2 12 0
Medical Expenses and Funerals.	15 0 0	38 1 3	0 4 10	5 19 5	2 14 11
Sundries	19 10 6	75 17 7	1 3 1	3 18 0	1 0 0
Total Ordinary Charges	768 3 11	2,560 7 5	53 17 4	371 10 4	583 7 8
Cost per Head for Maintenance and Management.	19 4 1	17 14 3	—	14 5 9	12 19 3
Ditto Food	6 11 7	4 11 1	—	4 10 5	5 11 6
Ditto Clothing	2 8 11	2 15 0	—	1 7 11	1 3 4
Extra Charges.					
Rent of School and Interest	22 17 11	—	—	—	—
„ Farm Premises ..	—	—	—	—	—
Disposal, Home Service ..	5 0 0	9 19 6	—	10 9 3	14 0 0
„ Emigration ..	—	—	—	—	—
Building & Capital Account	—	—	—	—	—
Total Extra Charges ..	27 17 11	9 19 6	—	10 9 3	14 0 0
Total Expenditure	796 1 10	2,560 6 11	53 17 4	381 19 7	597 7 8
Industrial Departments.					
Profit	—	134 4 3	—	42 8 2	—
Loss	8 11 1	—	—	—	—

* School closed early in 1906.

APPENDIX No. IV. (E.)—SUMMARY.

INDUSTRIAL SCHOOLS.—RETURN showing the Expenditure and Cost per Head for the Year 1906.

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND.							
TRAINING SHIPS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
"Clio"	223	4,935 0 7	—	331 8 7	53 13 10	—	23 7 6
"Mount Edgcumbe" ..	197	5,078 5 1	—	100 5 9	—	80 12 3	26 13 11
"Wellesley"	288	6,701 4 5	—	214 14 8	519 0 7	—	22 4 3
National Nautical	299	6,889 9 4	130 15 3	361 17 9	275 14 3	—	23 15 4
"Southampton"	196	4,652 12 4	—	72 17 7	71 18 5	—	23 14 10
BOYS.							
Chester	80	1,845 7 7	—	43 14 6	74 11 5	—	22 13 8
Birkenhead	81	1,872 11 11	—	103 6 0	24 17 0	—	24 1 9
Stockport	95	2,393 0 8	88 3 10	90 0 6	216 3 3	—	24 15 10
Macclesfield	128	3,124 13 3	40 6 7	150 6 1	137 5 8	—	24 16 7
Bishop Brown, R.C... ..	130	2,268 4 4	254 14 2	94 0 0	212 9 1	—	18 9 11
Cumberland	140	3,284 17 0	—	123 3 0	21 2 10	—	24 3 10
Chadwick, R.C.	194	3,708 0 10	285 7 9	149 11 6	134 18 2	—	20 11 2
Devon and Exeter	69	1,629 1 1	12 9 5	39 1 0	197 18 8	—	21 9 9
Dorset	58	1,269 4 6	30 0 0	58 11 1	44 11 1	—	22 12 10
Durham..	114	3,028 12 9	—	73 18 2	127 7 6	—	26 2 0
Sunderland	102	1,720 5 7	17 10 11	37 9 6	—	89 15 3	18 5 8
Green's Home..	57	1,027 3 4	—	—	82 15 10	—	16 11 4
Gateshead	111	2,750 0 7	—	62 8 10	597 13 6	—	19 19 1
Essex	143	3,369 17 8	35 14 0	123 0 8	—	58 8 2	25 1 8
Ilford, R.C.	231	6,260 11 1	—	518 1 8	740 16 3	—	26 2 9
Swansea	65	1,405 18 10	—	19 17 1	—	46 13 2	22 13 1
Park Row	76	1,725 6 10	78 7 6	70 10 11	41 3 0	—	24 2 5
Clifton	196	4,499 5 10	13 12 0	188 3 1	212 4 0	—	22 18 1
Purbrook	81	1,461 11 4	16 0 0	74 4 6	22 16 6	—	18 17 6
Milton	151	3,293 10 8	—	199 2 0	34 12 8	—	22 18 0
Hereford	125	2,904 6 4	—	155 5 6	286 5 8	—	22 3 9
Church Farm	84	2,622 18 3	—	126 2 10	869 8 4	—	22 7 6
Kent	182	4,344 19 6	—	29 16 3	663 5 7	—	20 7 10
St. Vincent's, R.C.	199	5,084 7 3	259 17 8	551 17 3	288 9 11	—	28 3 7

* Rent of farm premises is dealt with in Industrial Profit or Loss.

Industrial Schools.

APPENDIX No. IV. (E.)—SUMMARY.

RETURN showing the Expenditure and cost per Head for the Year 1906—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND—*cont.*							
BOYS—*cont.*		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Whitstable, R.C.	51	1,215 17 3	196 18 4	—	—	—	27 14 0
East London	148	3,903 13 9	192 8 9	190 13 8	—	73 13 8	29 9 3
Bolton	200	4,235 3 9	17 9 3	152 9 9	350 11 0	—	20 5 6
Manchester	177	4,941 15 9	—	181 3 0	153 12 3	—	22 19 10
Barnes' Home..	261	5,868 10 11	—	139 19 8	792 18 11	—	19 19 8
St. Joseph's, R.C.	353	6,422 4 7	399 14 4	137 0 0	472 11 6	—	18 7 6
Liverpool	215	4,131 16 4	31 6 10	107 3 8	364 11 6	—	18 3 4
Grafton Street	207	3,672 1 9	—	141 0 0	75 19 8	—	18 1 1
St. George's, R.C.	267	4,469 3 11	59 9 7	91 16 0	401 16 10	—	15 16 0
St. Anne Street, R.C. ..	147	2,863 0 2	100 0 0	—	310 19 2	—	18 0 10
Beacon Lane, R.C.	198	3,481 7 3	106 8 0	102 8 6	127 11 2	—	17 19 10
St. Thomas', R.C.	105	2,510 11 2	467 10 0	67 4 7	124 17 10	—	27 16 3
Desford	198	4,734 5 8	—	230 10 4	—	50 19 3	25 6 [illegible]
Feltham	546	18,089 8 10	—	1,762 0 6	151 10 1	—	36 1 7
Boys' Home	135	4,690 3 4	437 0 0	136 4 7	85 6 2	—	38 7 1
Field Lane	102	3,035 1 5	—	122 3 3	489 10 10	—	26 3 1
Hayes	58	2,387 5 7	—	201 2 3	—	71 8 9	47 9 11
Buxton	66	1,733 10 5	52 9 6	76 5 5	—	4 17 1	28 5 10
Elswick, R.C.	69	1,122 6 1	100 0 0	20 0 0	38 4 6	—	17 9 0
Somerset	177	4,351 0 10	125 0 0	187 19 4	1,013 7 1	—	20 12 6
Cannington, R.C.	96	2,016 19 2	100 0 0	119 10 7	255 7 3	—	20 12 9
Stafford	127	3,152 15 3	—	113 17 [illegible]	—	100 7 11	26 10 3
Standon Bridge	88	1,725 1 6	40 15 6	165 13 10	91 1 8	—	20 18 3
Walsham-le-Willows ..	38	714 8 7	35 8 9	63 5 2	17 2 2	—	20 18 11
Mayford	177	5,074 12 0	—	174 7 2	—	56 8 8	29 19 6
Clapham Park	30	949 0 11	—	—	—	—	31 12 8
Portslade	93	3,427 8 6	—	106 3 10	—	55 10 1	38 11 10
Shustoke	136	4,222 19 1	—	267 19 11	215 15 10	—	31 8 8
Harborne	141	2,916 2 10	—	74 15 0	177 2 5	—	19 19 1
Leeds	170	3,893 0 10	—	151 8 8	321 12 4	—	21 18 0
York	120	2,346 4 6	5 9 11	55 0 6	105 14 8	—	19 3 6
Middlesbrough	60	1,337 8 8	—	—	163 19 10	—	19 11 2
Shilden, R.C.	148	3,122 14 1	195 16 1	286 0 8	303 17 5	—	22 6 0

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (E.)—SUMMARY.

RETURN showing the Expenditure and cost per Head for the Year 1906—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND—*cont.*							
GIRLS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cold Ash	29	699 18 6	—	12 10 0	4 17 4	—	24 8 0
Stockport	65	1,299 10 2	48 14 8	33 0 0	140 1 8	—	19 1 11
Plymouth	53	1,219 14 7	56 5 0	53 3 1	108 10 7	—	23 0 7
Dorset	75	1,593 4 0	26 2 5	24 0 0	—	—	21 18 3
Sunderland	52	1,006 3 0	27 3 10	59 14 6	26 11 6	—	20 10 2
Darlington, R.C.	116	1,850 13 10	332 15 0	26 15 0	224 19 1	—	17 2 3
Halstead	60	1,312 2 9	25 0 0	45 19 9	—	—	23 1 0
Bristol	60	1,192 8 4	5 12 0	44 14 3	—	—	20 14 3
Carlton House	57	1,122 13 6	—	19 17 7	—	—	20 0 11
Portsmouth and S. Hants..	36	1,126 2 10	—	30 5 8	—	—	33 0 10
Sale	99	2,384 7 1	—	86 18 2	107 3 2	—	23 17 7
St. Joseph's, R.C.	158	2,920 18 8	248 0 0	139 10 0	369 15 0	—	18 12 0
Liverpool	96	1,940 13 3	—	166 5 7	165 9 11	—	20 4 6
Nile Street	80	1,479 18 11	—	68 0 0	—	—	19 7 0
St. Anne's, R.C.	144	2,838 9 11	154 19 3	116 16 2	233 8 0	—	19 19 7
St. Elizabeth's, R.C... ..	94	1,691 5 4	—	58 10 0	11 9 9	—	18 9 10
Blackbrook House, R.C. ..	110	1,451 2 3	80 0 0	60 0 0	—	—	14 9 4
Elm House	39	871 2 2	—	—	—	—	22 6 9
Maurice Girls' Home ..	27	501 17 5	25 16 0	30 0 0	22 19 6	—	19 16 1
King Edward	94	2,173 10 4	—	78 0 0	—	—	23 19 1
Gordon House	70	2,173 11 3	—	42 7 6	—	—	31 13 1
Nazareth House, R.C. ..	105	2,106 12 4	—	50 15 0	—	—	20 10 11
Northumberland Village Homes.	110	3,050 13 0	—	116 13 0	668 13 10	—	22 14 4
Plenmellor	22	404 11 3	12 10 0	8 15 0	4 2 0	—	19 3 4
Shipton-under-Wychwood	34	566 6 6	—	15 1 7	—	—	17 2 0
Bath	81	1,516 16 2	119 0 0	129 13 11	188 16 11	—	19 9 4
Lichfield	52	1,256 14 11	—	80 0 0	—	—	25 14 2
Princess Mary's	179	4,350 15 6	116 17 11	96 0 0	41 13 1	—	25 5 3
St. Mary's, W. Croydon, R.C.	150	2,815 6 9	230 0 0	68 0 0	—	—	20 15 1
Coventry	47	1,116 12 4	19 0 0	34 9 9	—	—	24 17 11
Salisbury, R.C.	104	1,918 2 1	10 2 8	58 0 0	534 2 10	—	13 19 3

* Rent of farm premises is dealt with in Industrial Profit or Loss.

Industrial Schools.

APPENDIX No. IV. (E.)—SUMMARY.

RETURN showing the Expenditure and cost per Head for the Year 1906—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND—*cont.*							
GIRLS—*cont.*		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hull	45	1,073 12 2	—	2 10 0	37 7 5	—	23 1 8
Thorparch	98	2,517 15 11	—	65 15 0	281 19 6	—	23 9 8
Leeds	68	1,303 10 7	—	22 17 5	154 5 7	—	17 4 9
York	49	1,001 13 10	30 8 0	79 8 1	78 0 8	—	21 1 10
Yorkshire, R.C.	83	1,991 8 6	—	49 5 7	164 16 10	—	22 12 0
Beckett Home	30	540 0 5	—	15 0 0	—	—	18 10 0
MIXED SCHOOLS.							
Newcastle	143	3,431 15 5	—	98 0 0	722 13 8	—	19 12 8
SCOTLAND.							
TRAINING SHIPS.							
"Empress"	392	7,746 1 10	40 0 0	123 15 10	—	19 2 4	20 4 6
"Mars"	398	8,211 18 8	—	274 16 6	—	—	21 6 6
BOYS.							
Aberdeen	123	2,312 11 8	45 15 2	64 5 1	267 18 3	—	17 10 4
Ayr	97	1,649 4 7	99 15 0	—	358 9 4	—	14 6 8
Dumfries	100	2,137 15 11	70 13 5	59 13 6	357 16 9	—	19 2 1
Leith	133	2,141 6 0	—	92 5 0	124 7 8	—	15 17 2
Tranent, R.C.	197	2,356 5 3	119 17 0	44 9 2	64 10 7	—	12 9 4
Arbroath	33	524 9 9	—	—	4 5 0	—	15 15 4
Dundee	220	3,661 0 10	—	—	288 19 4	—	15 6 7
Mossbank	364	8,553 18 2	—	155 5 5	1,021 1 2	—	21 2 5
Glasgow, R.C. Orphanage ..	199	3,232 18 1	907 14 11	33 15 6	371 5 2	—	19 2 3
Slatefield, R.C.	150	2,889 16 5	43 19 8	44 11 2	154 16 2	—	18 16 6
Perth Fechney	142	2,634 12 2	46 18 8	132 10 8	559 12 6	—	15 17 6
Greenock	130	1,831 3 2	6 5 11	—	—	42 3 5	14 9 2

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (E.)—SUMMARY.

RETURN showing the Expenditure and cost per Head for the Year 1906—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
SCOTLAND—*cont.*							
GIRLS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Aberdeen Female	58	982 11 6	117 0 0	27 0 0	—	—	19 8 6
Aberdeen, R.C.	130	1,526 8 2	85 2 8	170 13 6	—	—	13 14 2
Ayr	58	979 6 10	—	21 2 6	18 8 1	—	16 18 8
Leith	60	793 8 4	—	35 17 9	45 7 10	—	13 1 4
Dundee	117	1,704 1 8	—	—	71 5 2	—	13 19 1
Maryhill	210	4,441 15 3	—	644 8 5	—	20 14 3	24 6 4
Glasgow, R.C. Orphanage..	189	2,842 11 8	400 0 0	104 11 1	114 17 3	—	17 2 0
Dalbeth, R.C.	149	2,552 6 7	91 10 0	60 13 0	58 11 10	—	17 15 2
Perth Craigie	59	1,057 4 8	26 7 0	75 6 11	104 1 5	—	17 17 7
Perth	56	916 8 8	11 17 6	137 14 10	78 16 3	—	17 12 7
Greenock	40	768 3 11	22 17 11	5 0 0	—	8 11 1	20 2 4
Stirling	26	371 10 4	—	10 9 3	42 8 2	—	13 1 2
Newton Stewart	45	583 7 8	—	14 0 0	—	—	13 5 6
MIXED SCHOOLS.							
Kilmarnock	104	1,765 2 0	40 16 9	58 15 4	259 7 3	—	15 8 9
Edinburgh, Original ..	269	4,957 1 11	158 5 2	132 19 7	353 10 4	—	18 3 11
Paisley	144	2,550 7 5	—	9 19 6	134 4 3	—	16 17 0

* Rent of farm premises is dealt with in Industrial Profit or Loss.

Truant Industrial Schools.

APPENDIX No. V. (A. and B.)

TRUANT INDUSTRIAL SCHOOLS.—RETURN of ADMISSIONS,

SCHOOL.	Total under Detention 31st December, 1905.	Admissions in 1906.							Average Number.	Attained 14.	Medically unfit.
		Under 6.	From 6 to 8.	From 8 to 10.	From 10 to 12.	From 12 to 14.	Transferred from other Schools.	Total Admissions.			
Plymouth	218	—	—	8	8	8	—	24	18	77	—
North London..	398	—	2	22	27	42	1	94	110	121	—
West Ham	144	—	1	3	17	16	—	37	32	58	—
South Wales and Monmouth	271	—	—	25	37	53	—	115	74	119	—
Cardiff and Barry	185	—	—	16	38	54	165	273	65	102	—
Now Bristol	145	—	—	7	10	24	—	41	31	54	—
Hightown, Protestant ..	331	—	1	7	46	55	—	109	41	105	—
Now Hightown, Roman Catholic	300	—	—	27	66	66	—	159	51	107	—
Upton House	274	—	2	19	42	41	2	106	117	121	—
Highbury	368	—	3	27	51	72	—	153	167	172	—
Isleworth	186	—	—	9	30	26	—	65	65	80	—
Lichfield	195	—	1	8	37	46	1	93	84	101	—
Hull	271	—	—	7	26	34	—	67	48	65	—
Sheffield..	358	—	—	3	27	52	—	82	68	89	—
Shettleston	137	—	3	42	88	148	—	281	117	85	—
Total	3,781	—	13	230	550	737	169	1,699	1,086	1,456	—

APPENDIX No. V. (A. and B.)

DISCHARGES, &c., for the Year ending December 31, 1906.

Discharges in 1906.						Under Detention, 31st December, 1906.				SCHOOL.
Sent to Industrial School by order of Court.	Committed to Reformatory School.	Transferred to Industrial School.	Died.	Absconded.	Total Discharges.	In School.	On Licence.	Absconded.	Total.	
—	—	165	—	—	242	—	—	—	—	Plymouth.
—	—	1	—	—	122	106	264	—	370	North London.
1	—	1	—	—	60	41	80	—	121	West Ham.
—	—	—	—	—	119	80	187	—	267	South Wales and Monmouth.
—	—	—	—	—	102	104	252	—	356	Cardiff and Barry.
13	1	—	—	—	68	29	89	—	118	Bristol.
—	3	1	—	—	109	54	277	—	331	Hightown, Protestant.
4	2	1	—	—	114	65	280	—	345	Hightown, Roman Catholic.
—	—	1	—	—	122	136	122	—	258	Upton House.
—	—	1	—	—	173	172	176	—	348	Highbury.
1	—	1	—	—	82	72	96	1	169	Isleworth.
—	—	—	—	—	101	86	101	—	187	Lichfield.
1	5	—	—	—	71	62	205	—	267	Hull.
—	9	1	—	—	99	88	253	—	341	Sheffield.
4	1	—	—	—	90	139	189	—	328	Shettleston.
24	21	173	—	—	1,674	1,234	2,571	1	3,806	Total.

Truant ndustrial Schools.

APPENDIX No. V. (C.)

TRUANT INDUSTRIAL SCHOOLS, RETURNS of

RECEIPTS AND EXPENDITURE.	ENGLAND.				
	PLYMOUTH.*	NORTH LONDON.	WEST HAM.	SOUTH WALES AND MONMOUTH.	CARDIFF AND BARRY.
	Boys, 16. Officers, 5.	Boys, 110. Officers, 10.	Boys, 32. Officers, 8.	Boys, 74. Officers, 8.	Boys, 65. Officers, 9.
RECEIPTS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	154 15 8	610 3 2	171 1 2	424 9 6	329 16 6
County and Borough Rates	—	—	—	15 13 0	—
Education Authority Rates	385 1 6	1,724 1 5	881 1 6	1,449 18 9	1,450 19 6
Parochial Authorities ..	—	—	—	—	—
Sundries	10 1 0	—	270 1 4	0 9 10	0 10 0
TOTAL RECEIPTS ..	549 18 2	2,334 4 7	1,322 4 0	1,890 11 1	1,781 6 0
EXPENDITURE.					
Officers' Salaries and Allowances.	322 12 0	662 7 6	553 3 2	640 3 9	733 17 2
Food of Inmates	81 15 9	712 10 6	135 7 7	407 12 1	402 19 10
Clothing „	20 5 1	151 7 1	12 0 5	48 2 11	14 14 8
Washing, Fuel, Light, and Furniture.	42 15 4	256 11 7	72 14 0	204 15 2	206 1 3
Repairs, Rates, and Taxes..	38 8 6	350 12 9	212 16 5	253 11 0	273 16 2
Printing and Office Expenses	6 0 7	134 7 9	5 8 11	107 3 11	153 17 10
Travelling and Police ..	6 10 8	—	15 9 2	—	—
Medical Expenses	27 2 6	51 1 0	49 9 0	75 0 0	33 0 0
Sundries	—	8 2 10	265 15 4	42 13 6	—
Total Ordinary Charges	545 10 5	2,327 1 0	1,322 4 0	1,779 2 4	1,818 6 11
Cost per head for Maintenance and Management.	—	21 3 1	41 6 4	24 0 10	27 19 6
Ditto Food	—	6 9 7	4 4 7	5 10 2	6 4 0
Extra Charges.					
Rent	—	—	—	—	—
Disposal on Discharge ..	—	—	—	—	—
Building and Capital Account	—	—	—	444 17 3	80 2 6
Refunded to Associated Authorities.	—	—	—	—	—
Total Extra Charges ..	—	—	—	444 17 3	80 2 6
TOTAL EXPENDITURE	545 10 5	2,327 1 0	1,322 4 0	2,223 19 7	1,898 9 5
Industrial Departments.					
Profit	—	—	—	—	52 7 4
Loss	28 13 7	87 11 8	—	—	—

* School closed during the year.

APPENDIX No. V. (C.)

CEIPTS and EXPENDITURE of, for 1906.

ENGLAND.					
BRISTOL.	HIGHTOWN.	UPTON HOUSE.	HIGHBURY.	HOLME COURT.	RECEIPTS AND EXPENDITURE.
Boys, 31. Officers, 7.	Boys, 92. Officers, 16.	Boys, 117. Officers, 17.	Boys, 167. Officers, 18.	Boys, 65. Officers, 7.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
283 4 0	742 1 7	689 13 8	894 17 11	349 0 4	Treasury Grant.
—	—	—	—	—	County and Borough Rates.
679 14 6	2,152 1 1	3,480 19 2	3,466 6 9	1,135 15 0	Education Authority Rates.
—	—	—	—	—	Parochial Authorities.
—	—	32 18 8	9 8 0	—	Sundries.
962 18 6	2,894 2 8	4,203 11 6	4,370 12 8	1,484 15 4	TOTAL RECEIPTS.
					EXPENDITURE.
440 11 8	1,379 11 11	1,481 17 3	1,616 16 3	587 19 0	Officers' Salaries and Allowances.
199 17 8	489 5 5	727 2 4	934 19 9	303 10 10	Food of Inmates.
67 16 10	128 1 10	351 9 3	471 4 0	90 15 9	Clothing „
103 10 5	422 13 4	536 11 9	723 14 9	114 0 8	Washing, Fuel, Light, and Furniture.
111 1 5	270 9 5	874 15 2	346 11 7	116 19 4	Repairs, Rates, and Taxes.
10 1 5	37 11 9	41 15 9	107 15 0	85 10 4	Printing and Office Expenses
—	57 13 3	2 8 9	11 7 7	—	Travelling and Police.
21 1 2	82 5 7	103 11 1	135 16 7	30 14 2	Medical Expenses.
12 18 1	8 0 6	10 1 2	20 0 7	—	Sundries.
966 18 8	2,375 13 0	4,129 12 6	4,368 6 1	1,329 10 1	Total Ordinary Charges.
31 3 10	31 5 2	35 5 11	26 3 2	20 9 1	Cost per head for Maintenance and Management.
6 8 11	5 6 4	6 4 4	5 12 0	4 13 5	Ditto Food.
					Extra Charges.
—	—	0 8 4	6 5 0	—	Rent.
—	24 0 0	—	0 17 5	—	Disposal on Discharge.
—	—	100 4 6	60 9 2	—	Building and Capital Account.
—	—	—	—	—	Refunded to Associated Authorities.
—	24 0 0	100 12 10	67 11 7	—	Total Extra Charges.
966 18 8	2,399 13 0	4,230 5 4	4,435 17 8	1,329 10 1	TOTAL EXPENDITURE.
					Industrial Departments.
—	5 10 4	33 15 10	30 6 10	5 12 4	Profit.
—	—	—	—	—	Loss.

Truant Industrial Schools.

APPENDIX No. V. (C.)

Truant Industrial Schools, Returns of Receipts and Expenditure of, for 1906—*continued.*

Receipts and Expenditure.	ENGLAND—*continued.*			SCOTLAND.
	Midland. Boys, 84. Officers, 9.	Hull. Boys, 42. Officers, 5.	Sheffield. Boys, 68. Officers, 11.	Shettleston. Boys, 117. Officers, 14.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	521 14 0	433 19 10	614 19 7	532 12 6
County and Borough Rates	—	—	—	—
Education Authority Rates	1,586 6 8	754 19 3	1,404 12 0	3,152 5 3
Parochial Authorities ..	—	—	—	—
Sundries	14 5 3	26 0 0	—	—
Total Receipts ..	2,122 5 11	1,214 19 1	2,019 11 7	3,684 17 9
Expenditure.				
Officers' Salaries and Allowances.	721 15 0	478 9 3	663 9 5	978 0 0
Food of Inmates	479 11 10	323 0 0	343 2 7	954 14 6
Clothing „	140 10 6	127 11 7	201 5 2	438 3 10
Washing, Fuel, Light, and Furniture.	233 18 7	132 0 8	283 19 2	571 8 6
Repairs, Rates, and Taxes ..	258 9 9	129 0 5	169 15 0	446 1 5
Printing and Office Expenses	101 1 9	13 0 6	38 13 1	106 19 8
Travelling and Police ..	63 15 7	1 11 4	28 7 1	3 12 9
Medical Expenses	55 3 10	29 5 6	44 9 7	81 15 11
Sundries	59 19 5	—	2 18 4	20 0 0
Total Ordinary Charges	2,114 6 3	1,233 19 3	1,775 19 5	3,600 16 7
Cost per head for Maintenance and Management.	25 3 5	25 14 2	26 2 4	30 15 6
Ditto Food	5 14 2	6 14 7	5 0 11	8 3 2
Extra Charges.				
Rent	—	—	156 0 0	—
Disposal on Discharge ..	—	—	—	—
Building and Capital Account	—	—	113 12 10	—
Refunded to Associated Authorities.	—	—	—	—
Total Extra Charges ..	—	—	269 12 10	—
Total Expenditure	2,114 6 3	1,233 19 3	2,045 12 3	3,600 16 7
Industrial Departments.				
Profit	—	20 11 9	8 15 10	—
Loss	—	—	—	74 5 4

APPENDIX No. V. (D.)

Truant Industrial Schools.

Returns relating specially to Truant Schools, showing the Admissions and Results.

Truant Industrial Schools.

APPENDIX No. V. (D.)

RETURNS relating specially to TRUANT SCHOOLS,

——	Plymouth.	North London.	West Ham.	S. Wales and Monmouth.	Cardiff and Barry.	Bristol.	Hightown, Protestant.	Ditto, Roman Catholic.
Total Number admitted up to 31 December, 1906.	2,119	3,831	1,959	2,037	1,336	2,415	3,684	3,714
Licensed and not re-admitted	1,189	2,210	905	1,337	619	1,265	1,807	1,793
Licensed and once re-admitted	447	915	551	441	341	769	928	921
Licensed and twice re-admitted.	208	381	254	128	125	270	416	494
Licensed and three times re-admitted.	131	153	131	63	36	77	208	214
Licensed and four times and upwards re-admitted.	144	84	84	32	5	12	165	129
Total	2,119	3,743	1,925	2,001	1,126	2,393	3,524	3,551
Total Number licensed in 1906	63	94	64	213	110	65	151	196
Licensed and not re-admitted	52	84	46	163	69	51	116	158
Licensed and once re-admitted	10	10	17	47	35	14	32	35
Licensed and twice re-admitted.	1	—	1	3	6	—	3	3
Licensed and three times re-admitted.	—	—	—	—	—	—	—	—
Total	63	94	64	213	110	65	151	196
Total Number admitted in 1906	24	94	37	115	273	41	109	159
Licensed and not re-admitted	21	35	12	74	41	16	69	97
Licensed and once re-admitted	3	—	8	4	19	2	13	15
Licensed and twice re-admitted.	—	—	—	—	—	—	1	—
Licensed and three times re-admitted.	—	—	—	—	—	—	—	—
Total	24	35	20	78	60	18	83	112
Average detention :	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
1st admission	32	206	103	88	95	115	82	70
1st re-admission	60	241	137	133	126	159	110	78
2nd re-admission..	89	257	146	157	180	—	—	—

APPENDIX No. V. (D.)

showing ADMISSIONS and RESULTS.

Upton House.	Highbury.	Isleworth.	Lichfield.	Hull.	Sheffield.	Glasgow.	Total.	—
6,099	5,001	1,624	2,024	2,675	2,746	432	41,696	Total Number admitted up to 31 December, 1906.
3,302	2,527	800	1,091	1,107	1,259	199	21,410	Licensed and not re-admitted.
1,443	1,234	458	510	601	887	115	10,561	Licensed and once re-admitted.
601	651	184	199	392	343	34	4,770	Licensed and twice re-admitted.
325	282	70	95	297	118	—	2,200	Licensed and three times re-admitted.
199	176	29	71	247	49	—	1,426	Licensed and four times and upwards re-admitted.
5,960	4,870	1,541	1,966	2,644	2,656	348	40,367	Total.
136	211	114	122	127	135	275	2,076	Total Number licensed in 1906.
120	175	83	114	85	77	170	1,563	Licensed and not re-admitted.
16	36	31	8	38	56	89	474	Licensed and once re-admitted.
—	—	—	—	4	2	16	39	Licensed and twice re-admitted.
—	—	—	—	—	—	—	—	Licensed and three times re-admitted.
136	211	114	122	127	135	275	2,076	Total.
108	153	65	93	67	82	281	1,699	Total Number admitted in 1906.
12	41	24	43	28	29	151	693	Licensed and not re-admitted.
1	2	11	5	14	20	58	175	Licensed and once re-admitted.
—	—	—	—	—	—	—	1	Licensed and twice re-admitted
—	—	—	—	—	—	—	—	Licensed and three times re-admitted.
13	43	35	48	42	49	209	869	Total
Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Average detention.
245	240	162	149	90	102	89	125	1st admission.
320	313	195	—	115	193	117	164	1st re-admission.
324	348	233	—	119	188	—	204	2nd re-admission.

Day Industrial Schools.

APPENDIX No. VI. (A. AND B.)

DAY INDUSTRIAL SCHOOLS.—

SCHOOL.		Total under Detention 31 December, 1905.	ADMISSIONS IN 1906.				ADMISSIONS SINCE ESTABLISHMENT.		Average Attendance in 1906.	DISCHARGES IN 1906.			
			Under Order of Detention.	Under Attendance Order.	Without Order.	Total.	Committed.	Without Order.		By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.
ENGLAND.													
Sunderland	Boys	43	—	—	—	—	1,134	88	—	43	—	—	43
	Girls	4	—	—	—	—	95	1	—	4	—	—	4
Bristol	Boys	77	27	—	1	28	1,918	127	66	38	1	6	45
	Girls	46	31	—	—	31	948	17	52	21	1	1	23
South Corporation ..	Boys	212	59	—	5	64	3,167	268	146	86	—	12	98
	Girls	92	46	1	4	51	1,864	39	74	46	—	3	49
Bond Street	Boys	230	77	—	13	90	3,348	398	188	100	5	14	119
	Girls	117	73	—	4	77	1,774	34	102	69	—	—	69
Queensland Street ..	Boys	143	58	—	9	67	1,706	207	113	69	1	7	77
	Girls	93	45	—	7	52	927	65	78	34	—	4	38
Addison Street ..	Boys	144	71	—	3	74	1,059	111	122	54	1	14	69
	Girls	79	68	—	6	74	545	32	88	29	—	1	30
Kirkdale	Boys	136	87	—	8	95	1,689	1,366	127	45	1	14	60
	Girls	99	54	—	7	61	967	1,301	98	39	—	1	40
Manchester	Boys	178	105	—	—	105	2,048	—	154	92	4	5	101
	Girls	73	53	—	—	53	640	—	61	40	1	4	45
Salford	Boys	107	62	—	—	62	1,948	19	98	54	—	7	61
	Girls	46	34	—	—	34	599	4	43	26	—	1	27
Blackburn	Boys	33	8	—	2	10	520	5	23	15	—	—	15
	Girls	5	7	—	1	8	109	3	8	2	—	—	2
Bootle	Boys	112	28	15	8	51	943	105	87	60	5	4	69
	Girls	64	14	15	2	31	440	38	50	31	—	—	31
Drury Lane	Boys	78	64	—	4	68	951	10	78	40	—	3	43
	Girls	—	8	1	1	10	135	3	3	—	—	—	—
Brunswick Road ..	Boys	86	27	1	9	37	283	33	66	49	—	6	55
	G	26	6	—	2	8	75	10	19	16	—	1	17

APPENDIX No. VI. (A. AND B.)

ADMISSIONS and DISCHARGES, 1906.

Day Industrial Schools.

DISCHARGES SINCE ESTABLISHMENT.				UNDER DETENTION 31 DECEMBER, 1906.						SCHOOL.
By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.	Under Order of Detention.	Under Attendance Order.	Without Order.	On Licence.	Total.		
										ENGLAND.
1,149	22	51	1,222	—	—	—	—	-	Boys	Sunderland.
92	1	3	96	—	—	—	—	—	Girls	
1,448	18	519	1,985	55	—	3	2	60	Boys	Bristol.
757	3	151	911	53	—	—	1	54	Girls	
2,840	45	372	3,257	135	—	17	26	178	Boys	South Corporation.
1,709	3	97	1,809	73	1	5	15	94	Girls	
2,678	30	837	3,545	168	—	22	11	201	Boys	Bond Street.
1,523	7	153	1,683	113	—	10	2	125	Girls	
1,559	4	217	1,780	99	—	22	12	133	Boys	Queensland Street.
832	1	52	885	74	—	15	18	107	Girls	
759	17	245	1,021	133	—	11	5	149	Boys	Addison Street.
409	—	45	454	116	—	4	3	123	Girls	
2,510	137	237	2,884	150	—	17	4	171	Boys	Kirkdale.
2,117	—	31	2,148	109	—	7	4	120	Girls	
1,634	30	202	1,866	165	—	—	17	182	Boys	Manchester.
533	2	24	559	66	—	—	15	81	Girls	
1,671	19	169	1,859	104	—	—	4	108	Boys	Salford.
538	—	12	550	51	—	—	2	53	Girls	
432	18	47	497	12	—	3	13	28	Boys	Blackburn.
97	—	4	101	9	—	1	1	11	Girls	
895	31	28	954	58	11	24	1	94	Boys	Bootle.
404	1	9	414	34	13	15	2	64	Girls	
786	2	90	858	96	—	3	4	103	Boys	Drury Lane.
126	—	2	128	8	1	1	—	10	Girls	
223	—	25	248	61	—	7	—	68	Boys	Brunswick Road
62	—	6	68	17	--	—	—	17	Girls	

Day Industrial Schools.

APPENDIX No. VI. (A. AND B.)

Day Industrial Schools.—Admissions

SCHOOL.		Total under Detention 31 December, 1905.	ADMISSIONS IN 1906.				ADMISSIONS SINCE ESTABLISHMENT.		Average Attendance in 1906.	DISCHARGES IN 1906.			
			Under Order of Detention.	Under Attendance Order.	Without Order.	Total.	Committed.	Without Order.		By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.
ENGLAND—*continued.*													
Ponton Road	Boys	62	25	—	4	29	191	4	42	37	—	6	43
	Girls	3	1	—	—	1	12	—	2	2	—	—	2
Wolverhampton ..	Boys	39	13	—	—	13	860	—	31	21	2	1	24
	Girls	20	6	—	—	6	313	—	10	14	—	—	14
Edgar Street	Boys	59	40	—	12	52	1,453	14	64	29	—	4	33
	Girls	31	19	—	8	27	510	8	27	19	—	—	19
Czar Street	Boys	27	23	—	16	39	512	17	40	14	—	1	15
	Girls	22	10	—	11	21	232	11	26	9	—	1	10
SCOTLAND.													
Edinburgh	Boys	149	67	—	1	68	665	76	120	73	2	17	92
	Girls	21	12	—	—	12	91	3	19	14	—	—	14
Rotten Row	Boys	139	71	1	8	80	1,623	261	117	75	—	12	87
	Girls	93	64	—	10	74	769	146	84	54	—	7	61
Green Street	Boys	127	52	5	18	75	1,590	394	103	60	—	24	84
	Girls	86	32	—	8	40	863	210	67	51	—	5	56
Rose Street	Boys	126	66	2	17	85	1,154	133	97	77	1	13	91
	Girls	99	42	—	6	48	561	64	70	51	—	4	55
William Street ..	Boys	74	27	3	1	31	212	21	55	31	2	12	45
	Girls	41	22	—	3	25	107	10	37	17	—	5	22

APPENDIX No. VI. (A. AND B.)

and Discharges, 1906—*continued.*

Discharges since Establishment.				Under Detention 31 December, 1906.					School.	
By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.	Under Order of Detention.	Under Attendance Order.	Without Order.	On Licence.	Total.		
									ENGLAND—*continued.*	
127	1	19	147	47	—	1	—	48	Boys	Ponton Road.
9	—	1	10	2	—	—	—	2	Girls	
799	16	17	832	28	—	—	—	28	Boys	Wolverhampton.
297	1	3	301	12	—	—	—	12	Girls	
1,239	12	138	1,389	66	—	10	2	78	Boys	Edgar Street.
466	—	13	479	26	—	8	5	39	Girls	
437	2	39	478	33	—	15	3	51	Boys	Czar Street.
206	—	4	210	19	—	10	4	33	Girls	
									SCOTLAND.	
522	25	69	616	124	—	1	—	125	Boys	Edinburgh.
67	4	4	75	19	—	—	—	19	Girls	
1,507	10	235	1,752	129	1	2	—	132	Boys	Rotten Row.
757	2	50	809	105	—	1	—	106	Girls	
1,649	14	203	1,866	98	4	6	10	118	Boys	Green Street.
956	—	47	1,003	59	—	1	10	70	Girls	
993	3	171	1,167	106	—	2	12	120	Boys	Rose Street.
505	—	28	533	79	—	1	12	92	Girls	
137	8	28	173	54	1	—	5	60	Boys	William Street.
67	—	6	73	42	—	—	2	44	Girls	

Day Industrial Schools.

APPENDIX No. VI. (A. AND B.)—ABSTRACT.

DAY INDUSTRIAL SCHOOLS.—TOTAL

—		Total under Detention 31 December, 1905.	ADMISSIONS IN 1906.				ADMISSIONS SINCE ESTABLISHMENT.		Average Attendance in 1906.	DISCHARGES IN 1906.			
			Under Order of Detention.	Under Attendance Order.	Without Order.	Total.	Committed.	Without Order.		By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.
ENGLAND	Boys	1,766	774	16	94	884	23,730	2,772	1,445	846	20	104	970
	Girls	820	475	17	53	545	10,185	1,566	741	401	2	17	420
SCOTLAND	Boys	615	283	11	45	339	5,244	885	492	316	5	78	399
	Girls	340	172	—	27	199	2,391	433	277	187	—	21	208
TOTAL	Boys	2,381	1,057	27	139	1,223	28,974	3,657	1,937	1,162	25	182	1,369
	Girls	1,160	647	17	80	744	12,576	1,999	1,018	588	2	38	628

APPENDIX No. VI. (A. AND B.)—ABSTRACT.

ADMISSIONS and DISCHARGES of CHILDREN.

DISCHARGES SINCE ESTABLISHMENT				UNDER DETENTION 31 DECEMBER, 1906.					—
By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.	Under Order of Detention.	Under Attendance Order.	Without Order.	On Licence.	Total.	
21,166	404	3,252	24,822	1,410	11	155	104	1,680	Boys } ENGLAND.
10,177	19	610	10,806	782	15	76	72	945	Girls }
4,808	60	706	5,574	511	6	11	27	555	Boys } SCOTLAND.
2,352	6	135	2,493	304	—	3	24	331	Girls }
25,974	464	3,958	30,396	1,921	17	166	131	2,235	Boys } TOTAL.
12,529	25	745	13,299	1,086	15	79	96	1,276	Girls }

Day Industrial Schools.

APPENDIX No. VI. (C.)

DAY INDUSTRIAL SCHOOLS.—RECEIPTS and EXPENDITURE for 1906.

RECEIPTS AND EXPENDITURE.	SUNDERLAND.*	BRISTOL.	LIVERPOOL, SOUTH CORPORATION.	LIVERPOOL, BOND STREET.	LIVERPOOL, QUEENSLAND STREET.
	—	—	—	—	—
	No. .	No. 118.	No. 220.	No. 290.	No. 191.
	Officers, .	Officers, 8.	Officers, 15.	Officers, 16.	Officers, 14.
RECEIPTS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	94 10 5	321 6 7	575 7 2	726 19 10	476 1 7
Education Authority Rates ..	188 0 10	1,096 3 8	1,844 4 2	1,893 16 0	1,969 15 1
Payments from Parents	26 0 6	125 1 0	148 5 6	181 19 6	134 7 0
Payments from Guardians on behalf of Parents.	—	28 6 0	10 19 2	32 8 9	2 11 1
Subscriptions, &c.	—	—	—	—	—
Sundries	—	0 9 6	2 5 0	—	—
TOTAL RECEIPTS ..	308 11 9	1,571 6 9	2,581 1 0	2,835 4 1	2,582 14 9
EXPENDITURE.					
Officers' Salaries and Allowances	191 1 9	751 8 8	1,490 18 3	1,387 11 0	1,384 6 10
Food of Inmates	123 3 5	486 0 8	694 16 1	839 18 0	606 7 6
Washing, Fuel, Light, and Furniture.	20 13 8	129 19 8	146 2 2	202 6 11	160 17 5
Rates, Taxes, and Repairs	28 5 4	142 11 4	95 7 4	243 3 10	238 4 11
Printing, Books, and School Expenses.	—	15 14 6	99 17 5	89 13 8	115 8 7
Medical Expenses	—	25 15 8	53 19 3	69 5 2	48 1 1
Rent of Premises	—	—	—	—	—
Sundries	12 12 7	19 16 3	0 0 6	3 5 6	0 10 0
Total	375 16 9	1,571 6 9	2,581 1 0	2,835 4 1	2,553 16 4
Average Cost per Head	—	13 6 4	11 14 8	9 15 6	13 7 5
„ for Food	—	4 2 5	3 3 2	2 17 11	3 3 6
Extra Charges.					
Building and Capital Account ..	—	—	—	—	29 17 8
TOTAL EXPENDITURE ..	375 16 9	1,571 6 9	2,581 1 0	2,835 4 1	2,583 14 0
Profit on Industrial Department..	67 5 0	—	—	—	0 19 3
Loss „ „ ..	—	—	—	—	—

* School closed during the year.

APPENDIX No. VI. (C.)

DAY INDUSTRIAL SCHOOLS.—RECEIPTS and EXPENDITURE for 1906.

LIVERPOOL, ADDISON STREET.	LIVERPOOL, KIRKDALE.	SALFORD.	MANCHESTER.	BLACKBURN.	RECEIPTS AND EXPENDITURE.
No. 210. Officers, 14.	No. 225. Officers, 15.	No. 141. Officers, 10.	No. 215. Officers, 12.	No. 31. Officers, 5.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
509 17 1	537 6 10	396 6 10	579 12 6	90 1 0	Treasury Grant.
2,049 11 7	1,599 8 7	990 15 2	1,626 17 11	592 17 6	Education Authority Rates.
122 6 6	163 2 0	165 0 8	214 12 11	6 19 0	Payments from Parents.
19 15 11	—	—	—	—	Payments from Guardians on behalf of Parents.
—	—	—	—	—	Subscriptions, &c.
3 12 0	11 10 6	1 10 8	14 14 11	2 2 0	Sundries.
2,705 3 1	2,311 7 11	1,553 13 4	2,435 18 3	691 19 6	TOTAL RECEIPTS.
					EXPENDITURE.
1,399 13 9	1,286 3 4	874 3 11	1,152 16 1	363 13 4	Officers' Salaries and Allowances.
646 4 7	642 10 9	419 15 4	689 13 2	156 1 7	Food of Inmates.
160 2 4	181 14 8	126 2 11	277 18 10	77 10 11	Washing, Fuel, Light, and Furniture.
306 19 3	50 5 1	92 19 5	268 6 10	88 8 1	Rates, Taxes, and Repairs.
110 19 2	94 13 9	16 17 4	50 12 4	6 7 11	Printing, Books, and School Expenses.
59 11 2	55 16 6	25 18 8	18 15 0	—	Medical Expenses.
—	—	—	19 16 8	—	Rent of Premises.
0 1 0	0 3 10	—	49 2 0	3 0 0	Sundries.
2,683 11 3	2,311 7 11	1,555 17 7	2,527 0 11	695 1 10	Total.
12 15 7	10 5 5	11 0 8	11 15 1	22 8 5	Average Cost per Head.
3 1 7	2 17 1	2 19 6	3 4 2	5 0 8	„ for Food.
					Extra Charges.
21 11 10	—	—	—	—	Building and Capital Account.
2,705 3 1	2,311 7 11	1,555 17 7	2,527 0 11	695 1 10	TOTAL EXPENDITURE.
—	—	2 4 3	91 2 8	3 2 4	Profit on Industrial Department.
—	—	—	—	—	Loss „ „

Day Industrial Schools.

APPENDIX No. VI. (C.)

Day Industrial Schools —Receipts and Expenditure for 1906—*continued.*

Receipts and Expenditure.	Bootle. No. 137. Officers, 12.	London, Drury Lane. No. 81. Officers, 8.	London, Brunswick Road. No. 85. Officers, 10.	London, Ponton Road. No. 44. Officers, 6.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	294 19 4	218 19 11	256 12 7	142 4 4
Education Authority Rates ..	1,894 19 8	1,947 14 5	2,238 6 11	1,324 0 6
Payments from Parents	64 18 0	124 0 0	198 5 9	117 0 0
Payments from Guardians on behalf of Parents.	—	—	—	—
Subscriptions, &c.	—	—	—	—
Sundries	—	—	70 0 0	—
Total Receipts ..	2,254 17 0	2,290 14 4	2,763 5 3	1,583 4 10
Expenditure.				
Officers' Salaries and Allowances	1,268 0 9	878 4 10	1,131 2 3	699 5 3
Food of Inmates	529 7 9	328 15 5	441 15 6	222 12 10
Washing, Fuel, Light, and Furniture.	132 8 2	234 12 6	267 0 6	155 8 5
Rates, Taxes, and Repairs ..	149 7 11	654 16 10	671 11 2	305 1 0
Printing, Books, and School Expenses.	24 6 0	22 15 10	47 18 8	41 13 6
Medical Expenses	11 15 5	21 8 0	23 9 11	12 1 4
Rent of Premises	—	—	—	—
Sundries	139 11 0	22 15 0	115 16 7	47 10 2
Total	2,254 17 0	2,163 8 5	2,698 14 7	1,483 12 6
Average Cost per Head	16 9 2	26 14 2	31 15 0	33 14 4
„ for Food	3 17 3	4 1 2	5 3 11	5 1 2
Extra Charges.				
Building and Capital Account ..	—	—	—	—
Total Expenditure ..	2,254 17 0	2,163 8 5	2,698 14 7	1,483 12 6
Profit on Industrial Department	—	—	—	—
Loss „ „	—	97 4 6	69 4 7	48 18 9

APPENDIX No. VI. (C.)

Day Industrial Schools.—Receipts and Expenditure for 1906—*continued.*

WOLVERHAMPTON.	LEEDS, EDGAR STREET.	LEEDS, CZAR STREET.	EDINBURGH.	RECEIPTS AND EXPENDITURE.
No. 41.	No. 91.	No. 66.	No. 139.	
Officers, 6.	Officers, 5.	Officers, 5.	Officers, 7.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	RECEIPTS.
119 4 8	227 5 8	154 3 10	392 4 1	Treasury Grant.
420 8 11	578 19 6	592 9 10	720 0 4	Education Authority Rates.
64 10 8	86 15 6	68 11 9	217 7 9	Payments from Parents.
20 8 0	—	—	—	Payments from Guardians on behalf of Parents.
—	—	—	—	Subscriptions, &c.
—	1 10 0	—	0 15 9	Sundries.
624 12 3	894 10 8	815 5 5	1,330 7 11	TOTAL RECEIPTS.
				EXPENDITURE.
416 10 0	321 15 0	309 5 6	710 16 0	Officers' Salaries and Allowances.
147 8 10	359 19 6	280 3 6	325 5 5	Food of Inmates.
61 7 9	92 16 11	63 15 3	73 14 11	Washing, Fuel, Light, and Furniture.
63 16 8	80 3 7	162 5 3	149 13 10	Rates, Taxes, and Repairs.
4 12 10	11 13 9	18 10 11	25 0 1	Printing, Books, and School Expenses.
—	0 19 3	1 3 8	—	Medical Expenses.
—	18 4 0	—	—	Rent of Premises.
14 4 3	3 0 10	1 12 6	45 17 8	Sundries.
708 0 4	888 12 10	816 16 7	1,330 7 11	Total.
17 5 4	9 15 4	12 7 6	9 11 5	Average Cost per Head.
3 11 11	3 19 1	3 18 10	2 6 10	" for Food.
				Extra Charges.
—	—	—	—	Building and Capital Account.
708 0 4	888 12 10	816 16 7	1,330 7 11	TOTAL EXPENDITURE.
83 8 1	—	1 11 2	—	Profit on Industrial Department.
—	5 17 10	—	—	Loss " "

Day Industrial Schools.

APPENDIX No. VI. (C.)

Day Industrial Schools.—Receipts and Expenditure for 1906—*continued.*

Receipts and Expenditure.	Glasgow, Rotten Row. No. 201. Officers, 13.	Glasgow, Green Street. No. 170. Officers, 13.	Glasgow, Rose Street. No. 167. Officers, 13.	Glasgow, William Street. No. 92. Officers, 7.
Receipts.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treasury Grant	524 6 2	482 6 5	443 6 6	244 1 10
Education Authority Rates ..	*684 5 0	*1,040 4 7	*829 15 0	*697 4 4
Payments from Parents	213 9 7	124 4 9	143 13 0	106 9 2
Payments from Guardians on behalf of Parents.	104 5 0	111 1 0	22 15 0	32 5 0
Subscriptions, &c.	—	—	—	—
Sundries	15 12 0	13 4 0	29 15 0	20 0 0
Total Receipts ..	1,541 17 9	1,771 0 9	1,469 4 6	1,100 0 4
Expenditure.				
Officers' Salaries and Allowances	623 10 10	660 8 2	613 14 6	397 18 4
Food of Inmates	550 10 7	585 14 8	466 10 4	320 5 0
Washing, Fuel, Light, and Furniture.	98 16 11	183 12 11	150 0 8	90 14 4
Rates, Taxes, and Repairs ..	171 5 4	173 3 1	147 6 4	181 1 4
Printing, Books, and School Expenses.	41 18 4	88 13 5	39 15 2	49 19 6
Medical Expenses	26 10 6	25 6 5	19 1 6	13 6 9
Rent of Premises	—	—	—	15 0 0
Sundries	44 13 10	45 13 0	39 1 1	33 14 9
Total	1,557 6 4	1,762 11 8	1,475 9 7	1,102 0 0
Average Cost per Head	7 14 11	10 7 4	8 16 8	11 19 7
„ for Food	2 14 9	3 8 11	2 15 10	3 9 7
Extra Charges.				
Building and Capital Account ..	—	—	—	—
Total Expenditure ..	1,557 6 4	1,762 11 8	1,475 9 7	1,102 0 0
Profit on Industrial Department	2 17 6	12 15 2	8 5 10	2 18 11
Loss „ „	—	—	—	—

* Payments by Glasgow Juvenile Delinquency Board.

APPENDIX No. VII. (A.)

REFORMATORY SCHOOLS.

RETURN showing the NUMBER and CAUSES of DEATHS in REFORMATORY SCHOOLS during the Year 1906.

APPENDIX No. VII. (A.)

Reformatory Schools.

RETURN showing the Number and Causes of DEATHS in REFORMATORY SCHOOLS during the Year 1906.

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the					From Zymotic Diseases.						
			Lungs and Chest.	Brain.	Heart	Liver.	Stomach.	Scarlet Fever.	Enteric Fever.	Typhoid Fever.	Drowned.	Diseases of the Bones.	Blood-poisoning.	Diseases of Arteries.
ENGLAND.														
BOYS.														
Bedford	77	—	—	—	—	—	—	—	—	—	—	—	—	—
Bradwall	70	1	—	1	—	—	—	—	—	—	—	—	—	—
Devon	54	1	1	—	—	—	—	—	—	—	—	—	—	—
"Cornwall"	255	5	1	—	—	—	—	—	3	—	1	—	—	—
St. John's	117	—	—	—	—	—	—	—	—	—	—	—	—	
Glamorgan	65	—	—	—	—	—	—	—	—	—	—	—	—	—
Hardwicke	98	—	—	—	—	—	—	—	—	—	—	—	—	—
Kingswood	136	—	—	—	—	—	—	—	—	—	—	—	—	—
Hants	66	—	—	—	—	—	—	—	—	—	—	—	—	—
Herts	78	—	—	—	—	—	—	—	—	—	—	—	—	—
"Akbar"	209	2	2	—	—	—	—	—	—	—	—	—	—	—
Liverpool Farm ..	153	—	—	—	—	—	—	—	—	—	—	—	—	—
Farnworth	119	—	—	—	—	—	—	—	—	—	—	—	—	—
Fylde Farm	113	1	1	—	—	—	—	—	—	—	—	—	—	—
Birkdale Farm ..	197	—	—	—	—	—	—	—	—	—	—	—	—	—
Monmouth	35	—	—	—	—	—	—	—	—	—	—	—	—	—
Northampton	87	—	—	—	—	—	—	—	—	—	—	—	—	—
North Eastern	197	1	1	—	—	—	—	—	—	—	—	—	—	—
Kerrison	100	—	—	—	—	—	—	—	—	—	—	—	—	—
Red Hill	294	1	—	1	—	—	—	—	—	—	—	—	—	—
Saltley	100	—	—	—	—	—	—	—	—	—	—	—	—	—
Warwick	98	—	—	—	—	—	—	—	—	—	—	—	—	—
Wilts	100	—	—	—	—	—	—	—	—	—	—	—	—	—
Stoke Farm	80	—	—	—	—	—	—	—	—	—	—	—	—	—
Calder Farm	110	—	—	—	—	—	—	—	—	—	—	—	—	—
Castle Howard	97	—	—	—	—	—	—	—	—	—	—	—	—	—
Leeds	149	2	—	—	—	—	—	—	—	—	—	—	1	1
Market Weighton ..	210	1	—	—	—	—	—	—	—	—	—	1	—	—
Total	3464	15	6	2	—	—	—	—	3	—	1	1	1	1

APPENDIX No. VII. (A.)

Return showing the Number and Causes of Deaths in Reformatory Schools during the Year 1906—*continued.*

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the					From Zymotic Diseases.			Drowned.	Diseases of the Bones.	Blood-poisoning.	Diseases of Arteries.
			Lungs and Chest.	Brain.	Heart.	Liver.	Stomach.	Scarlet Fever.	Enteric Fever.	Typhoid Fever.				
ENGLAND—*cont.*														
GIRLS.														
Devon	50	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunderland	53	—	—	—	—	—	—	—	—	—	—	—	—	—
Arno's Court	82	1	—	—	—	—	—	—	1	—	—	—	—	—
Red Lodge	44	—	—	—	—	—	—	—	—	—	—	—	—	—
Liverpool	79	—	—	—	—	—	—	—	—	—	—	—	—	—
Toxteth Park	64	—	—	—	—	—	—	—	—	—	—	—	—	—
Lancashire R. C. ..	68	—	—	—	—	—	—	—	—	—	—	—	—	—
Ipswich	43	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	483	1	—	—	—	—	—	—	1	—	—	—	—	—
SCOTLAND.														
BOYS.														
Wellington Farm ..	109	—	—	—	—	—	—	—	—	—	—	—	—	—
Rossie	72	—	—	—	—	—	—	—	—	—	—	—	—	—
Parkhead	199	2	1	—	—	—	—	—	—	—	—	1	—	—
Kibble	119	—	—	—	—	—	—	—	—	—	—	—	—	—
Stranraer	90	—	—	—	—	—	—	—	—	—	—	—		—
Total	589	2	1	—	—	—	—	—	—	—	—	1	—	—
GIRLS.														
Dalry	42	—	—	—	—	—	—	—	—	—	—	—	—	—
East Chapelton ..	54	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	96	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Schools.

APPENDIX No. VII. (B.)

RETURN showing the Number and Causes of Deaths in INDUSTRIAL SCHOOLS during the Year 1906.

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						From Zymotic Diseases.			Rheumatic Fever.	Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Drowned.
			Lungs and Chest.	Heart.	Brain.	Stomach.	Throat.	Kidneys.	Enteric Fever.	Small-pox.	Scarlet Fever.							
ENGLAND. BOYS, PROTESTANT.																		
"Clio"	223	2	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—
Chester	80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Birkenhead	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stockport	95	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Macclesfield	128	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Mt. Edgcumbe" ..	197	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cumberland	140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Devon and Exeter ..	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Dorset	58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Durham	114	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunderland	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Wellesley"	238	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Green's Home	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gateshead	111	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Essex	143	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Swansea	65	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Park Row	76	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Clifton	196	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
National Nautical ..	299	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Purbrook	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Milton	151	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hereford	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Church Farm	84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kent	182	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
East London	148	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bolton	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manchester	177	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barnes' Home	261	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liverpool	215	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

APPENDIX No. VII. (B.)

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1906—*continued.*

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the: Lungs and Chest.	Heart.	Brain.	Stomach.	Throat.	Kidneys.	From Zymotic Diseases: Enteric Fever.	Small-pox.	Scarlet Fever.	Rheumatic Fever.	Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Drowned
ENGLAND—*cont.*																		
BOYS, PROTESTANT—*cont.*																		
Grafton Street	207	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Desford	198	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Feltham	546	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boys' Home	135	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Lane	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hayes	58	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Buxton	66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Newcastle	120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Somerset	177	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Staffordshire	127	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Standon Bridge ..	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Walsham-le-Willows	38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mayford	177	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Clapham Park	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portslade	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shustoke	136	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Harborne	141	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
"Southampton" ..	196	2	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Leeds	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
York	120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middlesbrough	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7,129	19	9	2	1	1	—	1	1	—	—	—	2	1	—	—	—	1
GIRLS, PROTESTANT.																		
Cold Ash	29			—						—	—	—	—	—	—	—	—	—
Stockport	65					—	—			—	—	—			—	—	—	—
Plymouth	53	2	2	—	—	—					—	—	—	—	—	—	—	—

Industrial Schools.

APPENDIX No. VII. (B.)

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1906—*continued.*

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						From Zymotic Diseases.				Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Drowned.
			Lungs and Chest.	Heart.	Brain.	Stomach.	Throat	Kidneys.	Enteric Fever.	Small-pox.	Scarlet Fever.	Rheumatic Fever.						
ENGLAND—*cont.* GIRLS, PROTESTANT—*cont.*																		
Dorset	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunderland	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Halstead	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bristol	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carlton House	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portsmouth	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sale	99	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Liverpool	96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nile Street	80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Elm House	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maurice Girls' Home ..	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
King Edward	94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gordon House	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stamford Hill	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Newcastle	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Northumberland Village Homes.	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plainmellor	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shipton-under-Wychwood.	34	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Bath	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lichfield	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Princess Mary	179	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coventry	47	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hull	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Thorparch	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leeds	68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
York	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beckett Home	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,838	5	3	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—

APPENDIX No. VII. (B.)

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1906—*continued.*

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						From Zymotic Diseases.			Rheumatic Fever.	Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Drowned.
			Lungs and Chest.	Heart.	Brain.	Stomach.	Throat.	Kidneys.	Enteric Fever.	Small-pox.	Scarlet Fever.							
ENGLAND—*cont.*																		
BOYS, ROMAN CATHOLIC.																		
Bishop Brown	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chadwick Memorial ..	194	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ilford	231	2	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—
St. Vincent's	199	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whitstable	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Joseph's	353	3	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
St. George's	267	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Anne Street ..	147	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beacon Lane	198	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Thomas'	105	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Elswick	69	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cannington	96	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Shibden	148	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2,188	13	8	2	1	—	—	1	—	—	1	—	—	—	—	—	—	—
GIRLS, ROMAN CATHOLIC.																		
Darlington	116	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Joseph's	158	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Anne's	144	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
St. Elizabeth's	94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blackbrook House ..	110	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Nazareth House ..	105	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Mary's (West Croydon).	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Salisbury	104	2	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—
Yorkshire	83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,064	5	1	—	1	—	—	—	—	—	—	—	1	—	1	—	1	—

Industrial Schools.

APPENDIX No. VII. (B.)

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1906—*continued*.

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						From Zymotic Diseases.			Rheumatic Fever.	Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Chorea.	Drowned.
			Lungs and Chest.	Heart.	Brain.	Stomach.	Throat.	Kidneys.	Enteric Fever.	Small-pox.	Scarlet Fever.								
SCOTLAND.																			
BOYS, PROTESTANT.																			
Aberdeen	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ayr	97	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kilmarnock	79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Empress"	392	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dumfries	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Edinburgh Original	197	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leith	133	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arbroath	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dundee	220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Mars"	398	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mossbank	364	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Perth, Fechney ..	142	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greenock	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paisley	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2,525	4	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
GIRLS, PROTESTANT.																			
Aberdeen, Female ..	58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ayr	58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kilmarnock	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Edinburgh Original	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leith	60	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dundee	117	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Maryhill	210	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

APPENDIX No. VII. (B.)

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1906—*continued.*

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						From Zymotic Diseases.										
			Lungs and Chest.	Heart.	Brain.	Stomach.	Throat.	Kidneys.	Enteric Fever.	Small-pox.	Scarlet Fever.	Rheumatic Fever.	Bowel Complaints.	Anæmia.	Diseases of the Bones.	Dropsy.	Burns.	Drowned.
SCOTLAND—*cont.*																		
GIRLS, PROTESTANT—*cont.*																		
Perth, Ladies	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Perth, Girls	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greenock	40	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Paisley	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stirling	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Newton Stewart ..	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	853	5	2	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—
BOYS, ROMAN CATHOLIC.																		
Tranent	197	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Glasgow Orphanage ..	199	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Slatefield	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	546	4	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
GIRLS, ROMAN CATHOLIC.																		
Aberdeen	130	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Glasgow Orphanage ..	189	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dalbeth	149	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	468	2	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—

Reformatory Schools.

APPENDIX No. VIII. (A.)

Re-convictions after Detention in a Reformatory School.

Return from Governors of Prisons of Males and Females re-convicted during the Year ending December 31, 1906, after Detention in a Reformatory School.

ENGLAND AND WALES.

Counties.	Prisons.	Males.	Females.
Bedford	Bedford	2	—
Berkshire	Reading	6	—
Cambridge	Cambridge	4	—
Cheshire	Knutsford	5	—
Cornwall	Bodmin	1	—
Cumberland	Carlisle	5	—
Derby	Derby	10	—
Devon	Exeter	11	—
	Plymouth	2	—
	Dartmoor	1	—
Durham	Durham	12	—
Essex	Chelmsford	6	—
Gloucester	Gloucester	7	—
	Bristol	20	—
Hants	Winchester	18	1
	Portsmouth	4	—
Hereford	Hereford	5	—
Herts	St. Albans	3	—
Kent	Canterbury	5	—
	Maidstone	4	—
Lancashire	Preston	25	2
	Manchester (Strangeways)	52	1
	Liverpool (Walton)	86	—
Leicester	Leicester	12	—
Lincoln	Lincoln	6	—
Middlesex	Pentonville	25	—
	Wormwood Scrubbs	16	—
	Holloway	—	4
Monmouth	Usk	7	—
Norfolk	Norwich	3	—
Northampton	Northampton	9	—
Northumberland	Newcastle-on-Tyne	5	—
Nottingham	Nottingham	2	—
Oxford	Oxford	1	—
Shropshire	Shrewsbury	7	—
Somerset	Shepton Mallet	2	—
Stafford	Stafford	21	—

APPENDIX No. VIII. (A.)

RETURN from Governors of Prisons of Males and Females re-convicted during the Year ending December 31, 1906, after Detention in a Reformatory School—*continued.*

ENGLAND AND WALES—*continued.*

Counties.	Prisons.	Males.	Females.
SUFFOLK	Ipswich	3	—
SURREY	Wandsworth	15	—
SUSSEX	Lewes	13	—
WARWICK	Birmingham	59	—
	Warwick	2	—
WILTSHIRE	Devizes	1	—
YORK	Kingston (Hull)	6	—
	Leeds	13	4
	Northallerton	23	—
	Wakefield	37	—
CARNARVON	Carnarvon	3	—
GLAMORGAN	Cardiff	11	1
	Swansea	2	—
	Unknown	—	—
	Total	598	13

SCOTLAND.

ABERDEEN	Aberdeen	13	2
	Peterhead	5	—
AYR	Ayr	20	—
DUMFRIES	Dumfries	9	—
EDINBURGH	Edinburgh	40	—
FORFAR	Forfar Police Cells	1	—
	Dundee	24	—
	Montrose	2	—
INVERNESS	Inverness	3	—
LANARK	Glasgow	3	4
	Barlinnie	121	—
ORKNEY AND SHETLAND ISLANDS.	Lerwick	1	
PERTH	Perth	22	—
	Dunblane	1	—
RENFREW	Greenock	16	2
ROXBURGH	Hawick Police Cells	1	—
STIRLING	Falkirk	1	—
	Unknown	—	—
	Total	283	8
	Grand Total	881	21

Reformatory Schools.

APPENDIX No. VIII. (B.)

RETURN showing number who left each School on Licence or Discharge during the three years 1903, 1904, and 1905, with the number of them who were re-convicted during 1906, and the percentage.

ENGLAND.

Reformatory School.	Number Licensed or Discharged.*	Re-convicted during 1906.	Percentage.
Bedford	63	4	6·3
Bradwall	62	5	8·1
Devon (Boys)	44	4	9·1
Devon (Girls)	45	2	4·4
Sunderland (Girls)	33	1	3·0
"Cornwall"	265	27	10·2
St. John's (late Boleyn Castle) (Roman Catholic).	172	10	5·8
Glamorgan	33	3	9·1
Hardwicke	38	3	7·9
Kingswood	101	5	4·9
Arno's Court (Roman Catholic, Girls).	67	1	1·5
Red Lodge (Girls)	34	—	—
Hants	54	4	7·4
Herts	84	—	—
"Akbar"	205	6	2·9
Liverpool Farm	140	5	3·6
Liverpool (Girls)	69	2	2·9
Farnworth (late "Clarence," Roman Catholic).	99	4	4·0
Fylde Farm (late Manchester and Salford).	81	3	3·7
Birkdale Farm (Roman Catholic)	156	3	1·9
Toxteth Park (Girls)	50	—	—
Lancashire (Roman Catholic, Girls).	55	—	—
Monmouth	17	—	—
Northampton	47	4	8·5
North Eastern	152	18	11·8
Kerrison	86	—	—
Ipswich (Girls)	33	—	—
Redhill	231	14	6·1
Saltley	88	8	9·1
Warwick (Boys)	54	1	1·9
Wilts	84	10	11·9
Stoke Farm	71	4	5·6
Calder Farm	78	9	11·5
Castle Howard	70	6	8·6
Leeds	131	12	9·2
Market Weighton Roman Catholic)	154	13	8·4
TOTAL	3,246	191	5·9

* Excluding those who have since died.

SCOTLAND.

Reformatory School.	Number Licensed or Discharged.*	Re-convicted during 1906.	Percentage.
Dalry (Girls)	33	—	—
Wellington Farm	79	8	10·1
Rossie	56	7	12·5
Glasgow (Girls)	42	1	2·4
Parkhead (Roman Catholic) ...	155	34	21·9
Kibble	110	12	10·9
Stranraer	86	6	7
TOTAL	561	68	12·1

* Excluding those who have since died.

ABSTRACT.

Reformatory Schools.	Number Licensed or Discharged.*	Re-convicted during 1906.	Percentage.
ENGLAND—			
Males, Protestant	2,279	155	6·8
Males, Roman Catholic ...	581	30	5·2
TOTAL	2,860	185	6·5
Females, Protestant... ...	264	5	1·9
Females, Roman Catholic ...	122	1	·8
TOTAL	386	6	1·5
SCOTLAND—			
Males, Protestant	331	33	10
Males, Roman Catholic ...	155	34	21·9
TOTAL	486	67	13·8
Females, Protestant... ...	75	1	1·3
Females, Roman Catholic ...	—	—	—
TOTAL	75	1	1·3

* Excluding those who have since died.

Reformatory Schools.

APPENDIX No. IX. (A.)

ANNUAL COMMITMENTS of JUVENILE OFFENDERS to PRISONS in the various COUNTIES of ENGLAND and WALES for 5 YEARS ending 31st DECEMBER 1905.

COUNTIES.	1901.			1902.			1903.			1904.			1905.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Bedford ..	7	—	7	7	—	7	1	—	1	11	—	11	1	—	1
Berks	17	—	17	16	—	16	11	—	11	5	1	6	5	1	6
Bucks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cambridge ..	5	1	6	4	1	5	3	—	3	9	—	9	7	—	7
Cheshire ..	10	—	10	7	—	7	3	—	3	8	—	8	1	—	1
Cornwall ..	1	—	1	3	1	4	5	—	5	1	—	1	3	—	3
Cumberland	14	—	14	15	1	16	5	—	5	13	—	13	5	—	5
Derby	8	—	8	7	—	7	7	1	8	6	—	6	5	—	5
Devon	28	1	29	20	2	22	15	—	15	22	2	24	15	1	16
Dorset ..	3	—	3	4	—	4	2	—	2	—	—	—	3	—	3
Durham ..	85	2	87	74	—	74	109	1	110	99	—	99	79	6	85
Essex	7	—	7	1	—	1	2	—	2	4	—	4	4	—	4
Gloucester ..	33	3	36	11	—	11	14	2	16	20	—	20	20	—	20
Hereford ..	3	—	3	1	—	1	—	—	—	1	—	1	4	1	5
Herts	9	—	9	3	—	3	5	1	6	2	—	2	—	—	—
Huntingdon ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kent	28	—	28	22	—	22	23	1	24	15	—	15	9	—	9
Lancashire ..	164	4	168	115	10	125	95	8	103	93	9	102	86	—	86
Leicester ..	20	—	20	5	—	5	13	1	14	21	—	21	12	—	12
Lincoln ..	6	1	7	23	1	24	19	—	19	7	1	8	8	—	8
London ..	327	1	328	251	—	251	252	9	261	246	2	248	244	—	244
Monmouth ..	11	1	12	4	—	4	6	—	6	8	—	8	8	—	8
Norfolk ..	8	—	8	3	—	3	7	—	7	8	1	9	11	1	12
Northampton	13	2	15	5	—	5	17	1	18	14	—	14	8	—	8
Northumberland.	68	5	73	93	4	97	83	2	85	103	5	108	154	5	159
Nottingham ..	5	—	5	5	—	5	11	—	11	13	—	13	5	—	5
Oxford ..	2	—	2	2	—	2	1	—	1	43	4	47	2	1	3

APPENDIX No. IX. (A.)

Reformatory Schools.

ANNUAL COMMITMENTS of JUVENILE OFFENDERS to PRISONS in the various COUNTIES of ENGLAND and WALES for 5 YEARS ending 31st DECEMBER 1905—*continued.*

COUNTIES.	1901.			1902.			1903.			1904.			1905.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Rutland ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Salop	7	1	8	9	—	9	8	3	11	4	—	4	3	2	5
Somerset ..	10	2	12	10	—	10	2	—	2	3	—	3	8	1	9
Southampton	30	1	31	7	—	7	10	1	11	14	—	14	9	—	9
Stafford ..	26	1	27	14	1	15	18	1	19	36	—	36	19	—	19
Suffolk ..	20	1	21	15	3	18	14	—	14	8	4	12	10	1	11
Sussex.. ..	3	—	3	9	1	10	17	—	17	15	1	16	9	1	10
Warwick ..	159	12	171	133	3	136	140	3	143	133	14	147	55	7	62
Westmoreland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wilts	7	1	8	1	—	1	2	—	2	3	—	3	2	—	2
Worcester ..	34	—	34	18	—	18	28	1	29	23	—	23	20	1	21
Yorkshire ..	95	7	102	105	2	107	93	2	95	109	2	111	147	3	150
Glamorgan ..	21	—	21	23	—	23	34	1	35	35	—	35	26	2	28
Other WELSH COUNTIES.	3	—	3	5	1	6	4	1	5	2	—	2	3	1	4
TOTALS ..	1,297	47	1,344	1,050	31	1,081	1,079	40	1,119	1,157	46	1,203	1,010	35	1,045

Reformatory Schools.

APPENDIX No. IX. (B.)

RETURN showing the NUMBER of JUVENILE OFFENDERS COMMITTED to REFORMATORY SCHOOLS in ENGLAND and WALES from the various COUNTIES in ENGLAND and WALES and from SCOTLAND for the YEARS 1902 to 1906.

COUNTIES.	1902.			1903.			1904.			1905.			1906.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Bedford ..	5	—	5	1	—	1	6	1	7	5	—	5	9	—	9
Berks	15	—	15	11	—	11	11	1	12	10	1	11	5	—	5
Bucks	5	—	5	1	—	1	4	2	6	3	—	3	1	—	1
Cambridge ..	—	—	—	3	1	4	3	—	3	1	—	1	2	2	4
Cheshire ..	24	5	29	46	7	53	31	7	38	23	2	25	50	3	53
Cornwall ..	—	—	—	2	—	2	3	—	3	7	1	8	8	—	8
Cumberland ..	3	1	4	5	—	5	2	—	2	—	—	—	3	—	3
Derby	10	3	13	8	1	9	14	1	15	4	—	4	7	1	8
Devon	4	5	9	9	—	9	11	—	11	14	1	15	7	2	9
Dorset	4	—	4	6	—	6	6	—	6	11	1	12	2	—	2
Durham ..	44	7	51	47	4	51	35	12	47	39	8	47	47	11	58
Essex	7	1	8	23	—	23	22	3	25	31	3	34	35	4	39
Gloucester ..	59	6	65	47	9	56	41	5	46	51	6	57	39	3	42
Hants	18	—	18	11	—	11	7	—	7	6	—	6	10	2	12
Hereford ..	—	—	—	—	—	—	—	1	1	3	1	4	1	—	1
Herts	6	—	6	9	—	9	5	1	6	2	—	2	9	1	10
Hunts	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Kent	38	5	43	20	—	20	19	1	20	23	1	24	15	2	17
Lancashire ..	225	29	254	197	36	233	234	24	258	262	26	288	245	38	283
Leicestershire	10	2	12	8	2	10	12	3	15	15	2	17	9	3	12
Lincoln ..	16	—	16	19	—	19	3	—	3	12	1	13	18	—	18
London ..	184	18	202	160	21	181	135	12	147	158	5	163	146	18	164
Middlesex ..	7	1	8	15	3	18	16	3	19	19	1	20	27	2	29
Monmouth ..	12	2	14	3	—	3	5	1	6	6	—	6	8	—	8
Norfolk ..	4	—	4	5	—	5	7	—	7	8	1	9	10	—	10
Northampton	11	1	12	16	—	16	9	1	10	10	1	11	8	2	10
Northumberland.	22	2	24	19	4	23	24	2	26	22	1	23	12	3	15
Notts	7	1	8	8	1	9	9	—	9	2	—	2	11	1	12

APPENDIX No. IX. (B.)

RETURN showing the NUMBER of JUVENILE OFFENDERS COMMITTED to REFORMATORY SCHOOLS in ENGLAND and WALES from the various COUNTIES in ENGLAND and WALES and from SCOTLAND for the YEARS 1902 to 1906—*continued.*

COUNTIES.	1902.			1903.			1904.			1905.			1906.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Oxford ..	4	2	6	3	—	3	5	—	5	5	2	7	2	—	2
Rutland ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Salop	2	—	2	2	1	3	1	1	2	—	—	—	5	—	5
Somerset ..	9	3	12	13	3	16	5	—	5	13	1	14	12	4	16
Southampton and Isle of Wight.	7	1	8	6	1	7	7	3	10	9	—	9	13	—	13
Stafford ..	32	6	38	26	7	33	44	5	49	33	7	40	39	5	44
Suffolk.. ..	13	2	15	7	1	8	7	—	7	8	1	9	13	1	14
Surrey ..	12	2	14	16	1	17	18	2	20	13	1	14	32	3	35
Sussex ..	13	1	14	19	1	20	24	1	25	21	—	21	16	—	16
Warwickshire	25	5	30	29	6	35	22	1	23	29	3	32	31	6	37
Westmoreland	—	—	—	—	—	—	3	—	3	—	—	—	—	—	—
Wilts	7	—	7	11	—	11	2	—	2	5	—	5	9	—	9
Worcestershire	18	1	19	13	—	13	24	3	27	30	6	36	11	3	14
Yorkshire ..	120	14	134	101	18	119	119	15	134	125	15	140	120	11	131
Glamorganshire.	24	7	31	28	5	33	20	5	25	16	3	19	32	2	34
Other Welsh Counties.	13	1	14	6	1	7	6	2	8	11	5	16	17	3	20
Isle of Man ..	—	—	—	3	—	3	6	—	6	1	—	1	1	—	1
Channel Islands	1	—	1	2	—	2	1	—	1	4	—	4	10	—	10
Scotland ..	16	8	24	7	2	9	6	12	18	—	6	6	8	6	14
TOTALS ..	1,056	142	1,198	991	136	1,127	994	131	1,125	1,071	113	1,184	1,116	142	1,258

Reformatory Schools.

APPENDIX No. X. (A.)

Payments from Parents.

A List of the Places from which Payments have been received on account of the Youthful Offenders under Detention in Reformatory and Industrial Schools, during the Year ending December 31, 1906, and the Amount collected at each such Place.

(A) On account of Youthful Offenders under Detention in Reformatory Schools.

	£	s.	d.		£	s.	d.		£	s.	d.
Abergavenny ..	10	0	0	Birkenhead, Borough.	114	9	6	Buckingham ..	2	13	0
Abertillery	1	6	0	Birkenhead, County.	9	12	6	Burnley, Borough	22	4	6
Abingdon	0	15	6	Birmingham ..	66	9	6	Burnley, County ..	6	10	0
Accrington	27	12	0	Bishop Auckland..	21	7	0	Burslem	16	1	6
Acle	2	12	0	Blackburn, Borough	4	2	0	Burton-on-Trent..	27	11	0
Aldershot	3	0	6	Blackburn, County	7	5	0	Bury	10	2	6
Alfreton	2	16	0	Blackpool	16	5	0	Bury St. Edmunds	0	4	0
Alton	6	11	0	Blaenau Festiniog	0	8	0	Buxton	2	14	0
Altrincham	27	4	6	Blandford	0	13	0				
Arundel	5	4	0	Blyth	0	10	6				
Ashbourne	3	18	0	Bolton, Borough ..	49	19	2	Camborne	1	7	6
Ashford	8	7	6	Bolton, County ..	11	6	0	Cambridge, Borough.	4	3	0
Ashton-under-Lyne	5	14	0	Bootle	48	18	0	Cambridge, County	3	12	0
Aston Manor ..	18	5	0	Boston	1	6	0	Cardiff, Borough ..	55	6	6
Aylesbury	7	3	0	Bottisham	5	5	0	Cardiff, County ..	24	18	6
				Bourne	2	4	0	Carlisle, Borough..	3	9	0
				Bournemouth ..	22	7	4	Carnarvon	16	6	0
Barnsley, Borough	20	0	6	Bradford, Borough	45	1	0	Castle Eden ..	1	2	0
Barnsley, County ..	3	0	0	Bradford, County	12	19	0	Chatham	21	13	0
Barnstaple, Borough	0	6	0	Braintree	0	12	0	Cheltenham ..	24	14	6
Barnstaple, County	3	13	6	Brentwood ..	9	8	6	Chertsey	7	8	6
Barrow-in-Furness	16	2	0	Bridgend	16	12	0	Chester	24	6	6
Barton-on-Humber	3	19	6	Bridgwater ..	3	17	0	Chesterfield, Borough.	11	12	0
Basingstoke	4	15	2	Bridlington ..	6	7	0	Chesterfield, County.	14	19	0
Bath	21	18	0	Brierley Hill ..	11	16	0	Chichester	4	14	0
Beaminster	2	12	0	Brigg	0	5	0	Chippenham ..	3	19	0
Bedford, Borough ..	15	1	0	Brighton	27	15	6	Chipping Campden	2	12	0
Belper	3	18	0	Bristol	178	19	9	Chipping Sodbury	2	7	0
Berwick-on-Tweed	1	11	0	Bromsgrove ..	3	4	6	Chudleigh	2	18	6
Bexhill	7	12	0	Bromyard	0	15	0	Church	5	17	0
Bilston	2	3	0	Broxton	3	15	0	Cirencester	2	12	0

APPENDIX No. X. (A.)

Payments from Parents (Reformatories)—*continued.*

	£ s. d.		£ s. d.		£ s. d.
Clitheroe	5 12 0	Exeter, City ..	34 17 6	Hanley	24 16 6
Colchester, Borough.	20 4 6	Exeter, County ..	3 14 10	Hartlepool	2 7 0
Coleford	17 18 6			Harwich	1 0 0
Consett	8 16 0			Hastings	33 11 6
Coventry	12 17 0	Falmouth	0 18 0	Haverfordwest ..	3 15 0
Crediton	2 12 0	Fareham	3 13 [illegible]	Haywards Heath	8 2 6
Crewe	3 10 6	Faringdon	0 16 6	Henley-on-Thames	6 5 0
Crickhowell ..	3 3 0	Farnham	1 6 0	Hereford	3 16 6
		Faversham ..	0 9 0	Hersham	2 12 0
		Fenny Stratford ..	0 11 6	High Wycombe, Borough.	1 2 6
Darlington	0 12 0	Flax Bourton ..	3 19 0	High Wycombe, County.	1 5 0
Dartford	2 3 0	Folkestone	6 2 0	Hitchin	9 0 6
Daventry	8 12 6	Frome	0 15 0	Honiton	7 17 6
Denbigh	7 14 0			Horsham	5 4 0
Derby, Borough ..	7 16 0	Gainsborough ..	21 9 6	Houghton-le-Spring	16 16 0
Derby, County ..	2 12 0	Gateshead, Borough.	119 4 0	Hove	11 8 6
Devizes	2 8 0	Gateshead, County	45 18 0	Huddersfield, Borough.	20 7 6
Devonport	5 5 4	Glastonbury ..	6 7 0	Hull	68 18 3
Dewsbury, Borough	0 8 0	Gloucester	16 13 0	Hurst	6 8 0
Dewsbury, County	56 14 0	Godalming ..	5 5 0	Hyde	3 18 0
Docking	0 4 6	Goole	22 16 6	Hythe	5 6 0
Doncaster, Borough	10 9 6	Gosforth	12 16 6		
Doncaster, County	19 2 6	Gosport	8 4 0		
Dorchester	1 16 0	Grantham, Borough.	2 7 6	Ilminster	7 16 0
Dorking	3 0 0	Gravesend	2 6 0	Ipswich, Borough	27 7 6
Downham Market	2 12 0	Grays	12 13 0	Ipswich, County ..	1 6 0
Dudley	5 11 6	Great Torrington ..	1 6 0		
Dukinfield	7 4 0	Grimsby, Borough	32 12 0		
Durham, Borough ..	7 10 6	Grimsby, County ..	7 15 6	Jarrow-on-Tyne ..	57 2 0
Durham, County ..	6 13 6	Guildford, Borough	6 5 0		
Dursley	4 8 0	Guildford, County	5 4 0	Keighley	13 18 0
		Guisborough ..	5 4 0	Kendal, Borough ..	2 15 0
				Kendal, County ..	0 5 6
Eastbourne	20 10 0	Hailsham	10 14 0	Kettering	11 0 6
East Retford ..	1 0 0	Halesworth ..	0 4 0	Kidderminster ..	11 11 6
Epping	2 12 0	Halifax, Borough	18 17 6	King's Heath ..	1 16 6
Epworth	3 11 6	Halifax, County ..	11 15 0	Kirkham	4 1 0
Evesham	1 6 0	Handsworth ..	47 1 0	Knaresborough ..	7 6 6

Reformatory Schools.

APPENDIX No. X. (A.)

Payments from Parents (Reformatories)—*continued.*

	£	s.	d.
Lancaster	4	0	6
Langley Mill ..	6	10	0
Launceston	5	0	0
Leamington.. ..	24	3	6
Leeds Borough ..	59	14	0
Leeds, County ..	1	8	0
Leek	1	9	6
Leicester, Borough	71	7	0
Leicester County ..	3	0	0
Leigh	3	16	6
Lewes..	0	18	0
Lichfield	13	11	6
Lincoln, Borough ..	15	7	0
Lincoln County (Kesteven).	1	15	0
Liscard	40	18	6
Liskeard	3	15	0
Liverpool	778	3	6
Llanelly	6	10	0
London, County ..	1,293	9	4
Longford	2	19	6
Longton	11	1	6
Louth, Borough ..	1	4	0
Lowestoft	19	1	0
Luton, Borough ..	7	15	0
Luton County ..	2	15	6
Lutterworth ..	2	12	0
Lyndhurst	1	19	6
Macclesfield, Borough.	3	19	6
Macclesfield, County.	3	15	9
Maidenhead ..	2	10	0
Malmesbury ..	0	9	0
Malvern	0	9	6
Manchester	340	12	6
Mansfield	7	2	0
Margate	12	19	0
Market Harboro' ..	11	14	0
Melton Mowbray	3	18	0
Merthyr Tydvil ..	46	14	0
Middlesborough ..	80	0	0
Middlewich .	5	10	6
Mildenhall	2	8	0
Mold	1	3	0
Monmouth	3	8	0
Morpeth	1	0	0
Nantwich	4	1	0
Neath, Borough ..	13	17	0
Neath, County ..	19	16	6
Newbury	1	6	0
Newcastle-on-Tyne.	104	9	0
Newcastle-under-Lyme.	28	15	0
Newport, Isle of Wight.	6	0	0
Newport, Monmouth.	7	9	0
Newtown, Montgomery.	2	7	0
Northallerton ..	6	16	0
Northampton, Borough.	31	18	0
Northampton, County.	2	12	0
Northleach ..	1	19	0
North Ormesby ..	19	18	0
North Walsham ..	2	14	0
Northwich	1	19	0
Norwich, Borough	6	8	0
Nottingham, Borough.	30	8	6
Nottingham, County.	6	13	3
Nuneaton	12	9	0
Oldbury	8	5	0
Oldham	17	12	6
Old Trafford ..	30	17	0
Ormskirk	3	11	6
Oswestry .. .	0	13	0
Otley	13	7	6
Oxford, Borough ..	3	19	0
Oxford, County ..	2	12	0
Patcham	8	18	6
Pembroke Dock ..	3	18	0
Peterborough City	4	14	0
Peterborough, County	2	12	0
Plymouth	2	18	0
Pontefract	18	8	0
Pontymister ..	12	12	0
Pontypool	24	12	0
Pontypridd	85	1	6
Poole	12	4	0
Portland	2	12	0
Portsmouth ..	7	18	6
Prescot	1	17	6
Preston	17	0	0
Ramsgate	2	9	0
Reading, Borough	29	6	0
Reading, County ..	3	10	6
Redditch	12	3	0
Reigate	0	10	0
Rochdale Borough	4	1	6
Rochdale, County	2	1	0
Rochester	6	0	0
Romsey	1	4	0
Ross	1	17	6
Rotherham, Borough.	9	12	0
Rotherham, County.	7	13	6
Rugby	7	17	0
Runcorn	0	14	3
St. Albans, Borough	2	10	6
St. Albans, County	1	9	0
St. Helens	9	7	6
St. Neots	0	19	6
Salford	76	8	0
Salisbury, Borough	5	16	0
Sandwich	6	17	0

APPENDIX No. X. (A.)

Payments from Parents (Reformatories)—*continued.*

	£ s. d.		£ s. d.		£ s. d.
Scarborough ..	34 18 0	Terrington St. Clements.	1 5 0	Wigan, County ..	7 0 0
Seaforth	17 3 6	Thorpe	9 4 0	Wimborne	10 11 6
Sevenoaks	1 18 7	Tonbridge	3 9 0	Wincanton	1 16 0
Sheffield, Borough..	131 4 0	Torquay	9 11 6	Winchester, Borough.	0 13 0
Sheffield County ..	0 9 0	Totnes	6 4 0	Windsor, Borough	9 7 0
Sittingbourne ..	15 4 0	Towcester	1 14 0	Wisbech	0 19 0
Skerton	6 10 0	Tredegar	13 14 0	Witham .. .	2 12 0
Skipton	20 17 6	Truro, County ..	4 6 6	Wiveliscombe ..	2 12 0
Slough	7 5 0	Tunbridge Wells ..	2 14 6	Wokingham ..	11 1 0
Somerton	2 12 0	Tunstall	10 2 0	Wolverhampton ..	12 9 0
Southampton ..	77 6 0	Tynemouth ..	14 12 0	Woodbridge ..	3 13 0
Southend - on - Sea	13 5 0			Woolston	10 17 0
Southminster ..	2 4 0	Uckfield	2 12 0	Worcester, Borough	3 0 0
Southport	1 11 0	Ulverston	2 6 0	Workington ..	2 12 0
South Shields ..	44 6 9			Wrexham	7 10 6
Spalding	2 12 0	Wakefield, Borough	12 15 6		
Sparkhill	11 6 0	Wakefield, County	16 12 6	Yarmouth	17 4 0
Spilsby	2 2 0	Wallingford ..	2 12 0	York, City	22 11 0
Stafford	4 17 6	Walsall	40 4 6	Total (England) £	7,331 12 0
Stalybridge	6 0 0	Wantage	1 4 0		
Stamford	3 18 0	Ware	2 15 0		
Staple Hill	3 11 0	Wareham	1 6 0		
Steyning	6 14 0	Warminster ..	7 6 0	SCOTLAND.	
Stockport, Borough	3 15 0	Warrington ..	7 11 0	Aberdeen	49 17 3
Stockton-on-Tees ..	41 2 0	Warwick	7 11 3	Cupar	5 4 0
Stoke-on-Trent ..	8 5 6	Watford	5 6 0	Dumfries, County	4 3 9
Stone	1 1 0	Wednesbury	14 15 6	Dundee	18 0 9
Stonehouse	2 10 0	Wellingborough ..	17 9 0	Edinburgh	95 14 0
Stourbridge	16 3 0	Wellington	2 10 9	Falkirk	9 1 0
Stourport	5 4 0	Welton	2 12 0	Glasgow	282 5 7
Stratford-on-Avon	2 12 6	West Bromwich ..	21 0 0	Kirkcaldy	2 14 0
Stroud	4 1 0	West Hartlepool ..	9 7 0	Motherwell, Borough.	1 5 0
Sunderland	220 13 9	Weston, Bath ..	9 1 0	Motherwell, County	9 2 0
Swansea	16 13 0	Weston - super - Mare.	8 14 0	Perth, City ..	5 17 0
Swindon	38 5 6	Weymouth., ..	5 13 0	Stirling, Borough..	5 3 0
		Whitby	1 3 0	Total (Scotland) £	488 7 4
Taunton	11 4 6	Whitehaven ..	7 15 0	Grand Total £	7,819 19 4
Temple Cloud ..	3 17 6	Widnes	14 11 6		

Industrial Schools.

APPENDIX No. X. (B.)

Payments from Parents.

(B.)—On account of Children under Detention in Certified Industrial Schools.

	£	s.	d.
Abergavenny ..	7	17	0
Abertillery	51	14	0
Accrington	19	15	0
Acle	2	8	0
Aldershot	7	9	0
Alfreton	5	4	0
Alton	1	6	0
Altrincham	45	17	0
Ashbourne	5	4	0
Ashford	10	17	6
Ashton-under-Lyne	7	7	6
Aston Manor ..	13	0	0
Bacup	5	12	0
Bakewell	6	8	0
Banbury, Borough ..	2	13	6
Bangor	5	10	0
Barnard Castle ..	5	4	0
Barnsley, Borough	33	17	6
Barnsley, County ..	4	15	0
Barnstaple, Borough	4	10	6
Barnstaple, County	5	13	6
Barrow-in-Furness	42	12	6
Bath	43	4	6
Beaminster	6	7	0
Beccles	6	8	0
Bedford, Borough ..	4	14	6
Belper	2	17	0
Berwick-on-Tweed	6	6	0
Beverley, Borough	3	2	0
Bexhill	1	14	6
Bicester	0	4	0
Bilston	4	9	6
Birkenhead, Borough.	40	12	0
Birkenhead, County	3	18	0
Birmingham ..	167	2	6
Bishop Auckland ..	10	16	6
Bishop Stortford ..	0	16	6
Blackburn, Borough.	12	0	6
Blackburn, County	9	6	0
Blackpool	12	14	0
Blaenau Festiniog	4	6	6
Blandford	2	13	6
Blyth	18	16	0
Bodmin	5	4	0
Bolton, Borough ..	115	14	3
Bolton, County ..	21	11	6
Bootle	45	18	0
Bournemouth ..	12	15	0
Bradford, Borough	42	9	6
Bradford, County	7	9	0
Braintree	13	13	0
Brentwood	8	11	3
Bridgend	10	9	0
Bridgnorth	2	12	0
Bridgwater ..	9	6	9
Bridlington	18	5	6
Brierley Hill ..	7	16	0
Brigg	2	11	0
Brighton	37	15	6
Bristol	237	1	9
Bromsgrove ..	4	10	0
Burnley, Borough	45	8	9
Burnley, County ..	10	13	6
Burslem	17	0	6
Burton-on-Trent ..	63	1	6
Bury	48	10	0
Bury St. Edmunds	1	11	0
Buxton	3	15	0
Camborne	9	19	6
Cambridge, Borough.	30	12	6
Canterbury, Borough.	8	16	0
Canterbury, County.	12	19	0
Cardiff, Borough ..	168	10	6
Cardiff, County ..	42	0	0
Carlisle, Borough ..	17	9	0
Carlisle, County ..	4	14	0
Carnarvon	12	10	0
Castle Eden ..	2	4	3
Chatham	101	11	0
Chelmsford ..	24	9	3
Cheltenham ..	9	8	6
Chertsey	15	10	0
Chester Borough ..	58	14	0
Chesterfield, Borough.	7	9	6
Chesterfield, County.	29	12	0
Chippenham ..	20	6	0
Chipping Norton ..	0	2	0
Chiswick	10	18	0
Chorley	0	18	0
Chudleigh	4	5	9
Church	8	4	6
Clitheroe	2	6	6
Cockermouth ..	47	14	0
Colchester, Borough.	5	14	0
Colchester, County.	2	19	0
Coleford	16	18	0
Consett	39	1	0
Conway	3	18	0
Coventry	45	15	0
Crediton	7	1	6
Crewe	48	2	6
Crickhowell ..	0	7	0

APPENDIX No. X. (B.)

Payments from Parents (Industrial Schools)—*continued.*

	£	s.	d.
Darlington	48	3	6
Dartford	8	0	0
Denbigh	0	12	0
Derby, Borough ..	118	6	6
Derby, County ..	12	15	0
Devizes	2	15	0
Devonport	195	2	6
Dewsbury, Borough	0	13	6
Dewsbury, County	18	7	6
Doncaster, Borough	9	17	6
Doncaster, County	1	19	0
Dorchester	22	4	0
Dorking	7	14	0
Dover	19	13	0
Downham Market	1	4	0
Dudley	5	6	6
Dukinfield	2	15	6
Dunster	7	12	0
Durham, Borough..	19	4	0
Durham, County ..	18	13	0
Eastbourne ..	11	12	0
East Harling ..	4	5	0
East Retford ..	5	4	0
Epping	4	16	0
Evesham	8	12	0
Exeter, Borough ..	73	2	6
Exeter, County ..	5	17	0
Falmouth	1	5	6
Fareham	3	16	6
Farnham	0	8	0
Faversham	4	15	0
Flax Bourton ..	2	15	0
Folkestone	8	8	6
Gainsborough ..	2	5	6
Gateshead, Borough.	219	16	3
Gateshead, County	49	1	6
Glastonbury ..	14	9	0
Glossop	0	12	0
Gloucester	7	4	6
Godalming.. ..	5	10	0
Goole..	15	7	6
Gosforth	49	11	6
Gosport	7	10	0
Gravesend	58	19	6
Grays	17	7	0
Great Torrington..	0	9	0
Grimsby, Borough	42	13	0
Grimsby,County..	14	7	6
Guildford, County	0	10	6
Guisborough ..	8	1	0
Hailsham	1	15	0
Halifax,Borough..	8	4	0
Halifax, County ..	16	6	0
Handsworth ..	40	13	0
Hanley	23	8	6
Hartlepool	5	19	6
Hastings	23	13	0
Haverfordwest ..	1	3	0
Haywards Heath	6	9	0
Hemel Hempstead	2	4	0
Henley	7	9	0
Hereford, Borough	3	12	0
Hereford, County	0	2	6
Hersham	0	12	0
Hertford	1	2	6
Hexham	18	1	0
High Wycombe County.	1	11	0
Hitchin	6	17	6
Holt	2	12	0
Holywell	1	16	0
Horsham	1	6	0
Houghton	15	0	6
Hove	9	15	0
Huddersfield, Borough.	25	7	0
Huddersfield, County.	7	11	8
Hull	152	9	0
Hurst	11	19	0
Hyde	36	9	0
Hythe	2	9	0
Ilminster	5	17	0
Ipswich, Borough	43	11	0
Ipswich, County ..	0	3	0
Jarrow-on-Tyne ..	62	1	0
Keighley	14	18	0
Kendal, Borough..	4	5	6
Kettering	3	5	6
Kidderminster ..	2	17	0
King's Heath ..	4	16	0
King's Lynn ..	4	13	0
Kirkham	14	1	6
Knaresborough ..	22	13	6
Lancaster	17	16	6
Langley Mill ..	9	1	0
Launceston.. ..	5	6	0
Leamington ..	7	12	0
Ledbury	1	5	6
Leeds, Borough ..	178	18	0
Leek	2	11	0
Leicester, Borough	117	4	0
Leigh..	34	2	6
Lewes	4	8	0
Leyburn	2	11	0
Lichfield	16	4	0
Lincoln, Borough..	26	16	0
Liscard	24	14	6
Liskeard	4	14	0
Liverpool	1,551	4	0
Llandyssil	0	6	0
Llanelly	15	19	6
Loddon	2	11	0
London	4,938	19	1
Longford	6	14	0
Longton	47	14	0
Loughborough ..	7	19	0

Industrial Schools.

APPENDIX No. X. (B.)

Payments from Parents (Industrial Schools)—*continued*.

	£	s.	d.
Louth, Borough ..	3	0	0
Lowestoft	29	1	6
Luton, Borough ..	4	10	0
Lyndhurst	2	13	0
Macclesfield, Borough.	6	2	6
Macclesfield, County.	13	19	0
Maidenhead ..	0	16	9
Maidstone, Borough	8	0	0
Malton	5	4	0
Malvern	15	12	0
Manchester ..	331	13	6
Mansfield	5	18	0
Margate	9	19	6
Matlock Bridge ..	6	0	0
Melton Mowbray ..	2	16	0
Merthyr Tydvil ..	71	17	3
Middlesborough ..	139	5	0
Middlewich ..	11	3	0
Mold	23	13	6
Nantwich	11	18	0
Neath, Borough ..	1	11	6
Neath, County ..	6	2	0
Newark, Borough..	6	11	0
Newark, County ..	15	16	0
Newbury	3	18	0
Newcastle-on-Tyne	308	9	3
Newcastle-under-Lyme.	22	13	6
Newport (I.W.) ..	5	15	0
Newport, Mon. ..	28	3	0
Newtown	4	10	0
Normancross ..	1	10	0
Northallerton ..	1	7	0
Northampton, Borough.	7	11	6
Northampton, County.	2	12	0
North Ormesby ..	15	11	0
Northwich	4	14	0
Norwich, Borough	39	18	6
Norwich, County ..	3	2	0
Nottingham, Borough.	99	7	6
Nottingham, County.	24	7	6
Nuneaton	28	2	6
Oakmere	8	5	0
Oldham	60	5	0
Old Trafford ..	80	13	6
Ormskirk	2	10	0
Oswestry	2	4	3
Otley..	8	1	6
Oxford, Borough..	19	1	0
Oxted	2	12	0
Patcham	0	1	0
Pembroke Dock ..	2	18	0
Penrith	4	2	0
Penzance	5	4	0
Peterborough, City	4	4	0
Petersfield	3	8	0
Plymouth	72	14	0
Pontefract	31	0	0
Pontymister ..	11	1	6
Pontypool	20	3	6
Pontypridd ..	61	1	6
Poole..	24	15	6
Portland	20	1	0
Portsmouth ..	46	8	6
Prescot	9	3	0
Preston	43	0	0
Pwllheli	0	3	6
Ramsgate	9	13	6
Rawtenstall ..	4	13	0
Reading, Borough	52	3	6
Redditch	3	5	0
Reigate	11	1	0
Ringwood	0	4	0
Rochdale. Borough	35	10	0
Rochdale, County	9	9	0
Rochester	23	6	0
Romford	19	14	0
Romsey	2	12	0
Rotherham, Borough.	45	10	0
Rotherham, County.	17	9	0
Rugby..	7	9	0
Runcorn	5	0	6
St. Albans	1	1	0
St. Helens	18	5	0
Saffron Walden ..	4	8	6
Salford	150	3	0
Salisbury, Borough	2	13	0
Sandwich	7	13	0
Scarborough ..	41	7	0
Scunthorpe ..	23	2	6
Seaforth	11	0	0
Selby	3	7	0
Sevenoaks	2	13	0
Shaftesbury ..	0	17	6
Sheffield, Borough	206	17	3
Sherborne	2	12	0
Shrewsbury, Borough.	5	18	6
Sittingbourne ..	22	7	6
Skipton	12	0	0
Skirbeck Quarter	4	14	0
Slough	10	15	6
Solihull	5	4	0
Southampton ..	36	9	6
Southend	15	7	6
Southminster ..	1	18	0
South Molton ..	0	3	0
Southport	22	1	0
South Shields ..	176	7	0
Spalding	11	10	6
Sparkhill	2	14	0
Stafford	3	3	0
Stalybridge ..	3	16	0
Staple Hill	15	14	0
Steyning	0	15	0
Stockport, Borough	39	7	6

APPENDIX No. X. (B.)

Payments from Parents (Industrial Schools)—*continued.*

	£	s.	d.
Stockport, County ..	3	12	0
Stockton-on-Tees ..	64	11	6
Stoke-on-Trent ..	13	8	0
Stone	7	9	6
Stonehouse	18	12	6
Stourbridge	5	6	0
Stourport	0	14	0
Stratford	4	11	6
Stroud	2	11	9
Sunderland	320	3	6
Swansea	98	7	0
Swindon	21	13	0
Tadcaster	3	8	0
Taunton	8	7	0
Temple Cloud ..	3	7	0
Terrington	5	2	0
Thornaby	9	18	0
Tiverton	0	7	0
Tonbridge	4	2	6
Torquay	24	0	3
Tredegar	28	18	6
Truro, Borough ..	13	0	0
Truro, County ..	6	12	6
Tunbridge Wells ..	3	19	0
Tunstall	8	14	0
Tynemouth	129	6	0
Uckfield	0	19	6
Ulverston	16	12	0
Wakefield, Borough	18	8	6
Wakefield, County	14	16	0
Walsall	77	6	0
Warrington	23	16	0
Warwick	12	9	6
Watford	11	17	6
Wednesbury	20	2	0
Wellingborough ..	10	2	3
Wellington	3	18	0
West Bromwich ..	31	8	6
West Hartlepool ..	74	9	0
West Malling ..	2	4	0
Weston, Bath ..	16	7	0
Weston-super-Mare	9	15	0
Weymouth	13	3	0
Whitby	3	18	0
Whitehaven ..	36	0	0
Widnes	27	10	6
Wigan, Borough ..	37	0	0
Wigan, County ..	17	13	6
Wigton	6	10	0
Wincanton	6	7	6
Winchester, Borough.	4	2	6
Winchester, County	6	10	0
Windsor, Borough	3	18	0
Windsor County ..	5	13	0
Wisbech	4	13	0
Witham	1	16	0
Withernsea ..	0	6	0
Wokingham ..	14	10	0
Wolverhampton ..	8	8	8
Woodbridge ..	11	10	6
Woolston	2	4	9
Worcester Borough.	49	11	0
Worcester, County	1	12	0
Workington ..	124	12	0
Worksop	4	10	0
Worthing	0	16	6
Wrexham	29	15	6
Wymondham ..	2	12	0
Yarmouth	52	5	6
Yeovil	4	14	0
York	39	9	0
Total .. £	15,761	3	5
SCOTLAND.			
Aberdeen	117	6	9
Crieff	7	18	0
Cupar	18	5	0
Dumfries, Burgh ..	0	17	0
Dumfries, County	11	2	6
Dundee	253	15	8
Edinburgh	256	3	6
Falkirk	25	3	0
Glasgow	1,870	0	1
Hawick	2	4	6
Kirkcaldy	26	11	0
Montrose	6	3	6
Motherwell, Burgh	7	18	0
Motherwell, County.	12	15	0
Perth, City	50	14	3
Perth, County ..	20	6	0
Perth, Fechney ..	56	0	6
Stirling, Burgh ..	6	6	0
Stirling, County ..	1	15	0
Total .. £	2,751	4	9
PAYMENTS FROM PARISH COUNCILS.			
Aberdeen	187	6	6
Crieff	11	7	6
Cupar	8	0	0
Dumfries, County	9	2	0
Dundee	157	6	8
Dunfermline ..	2	15	0
Edinburgh	676	1	0
Falkirk	66	8	6
Glasgow	1,506	14	3
Kirkcaldy	11	7	6
Montrose	7	6	9
Motherwell, Burgh	13	5	0
Perth, City	60	17	6
Perth, County ..	6	12	6
Perth, Fechney ..	30	5	0
Stirling, Burgh ..	12	2	6
Total .. £	2,766	18	2
Grand Total £	21,279	6	4

Reformatory Schools.

APPENDIX XI.

OFFENCES for which the 1,258 YOUTHFUL OFFENDERS (ENGLAND) and 210 (SCOTLAND) were committed to REFORMATORIES in 1906.

	England.	Scotland.
Absconding from industrial school	4	1
Arson	3	—
Assault	15	1
Attempted house-breaking	1	—
Attempted theft	10	1
Begging	19	—
Being on enclosed premises with unlawful intent ...	5	—
Burglary	4	—
Embezzlement	6	2
Felony	14	—
Fraud	—	4
Gambling	8	—
House or shop-breaking	77	27
Indecency	2	—
Indecent assault	8	1
Larceny	981	167
Lodging in outhouses	3	—
Loitering with unlawful intent	11	—
Maliciously administering poison	1	—
Malicious mischief	—	2
Obtaining by false pretences	13	—
Procuring another to commit felony	1	—
Receiving stolen goods	5	1
Refusing to comply with rules of industrial school...	3	1
Refusing to work in workhouse	1	—
Riotous conduct in streets	1	—
Throwing stones	2	—
Unlawfully killing a lamb	1	—
Unlawful possession	8	1
Unnatural offence	1	—
Using obscene language...	1	—
Vagrancy	37	—
Wandering	6	—
Wilful damage	6	1
Total	1,258	210

FIFTY-FIRST REPORT,

FOR THE YEAR 1907,

OF THE

INSPECTOR

APPOINTED,

UNDER THE PROVISIONS OF THE ACT 5 & 6 WILL. IV. c. 38,

TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS

OF

GREAT BRITAIN.

PART I.—List of Schools and Detailed Reports.

Presented to both Houses of Parliament by Command of His Majesty

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1908.

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FIFTY-FIRST REPORT

OF THE

INSPECTOR

APPOINTED TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS OF GREAT BRITAIN.

PART I.—List of Schools and Detailed Reports.

To the
Right Hon. HERBERT JOHN GLADSTONE,
M.P., &c., &c.,
Secretary of State for the Home Department,

and

To the
Right Hon. JOHN SINCLAIR, M.P., &c., &c.,
Secretary for Scotland.

Great Scotland Yard, S.W.,
March, 1908.

Sirs,

I have the honour to submit the first part of the Annual Report on the Reformatory and Industrial Schools under inspection in both England and Scotland during the year 1907. This gives a complete list of the schools under inspection, and detailed Reports on all of them.

Part II., containing a variety of statistical information, will be submitted later.

I am, &c.,
T. D. Robertson,
H.M. Chief Inspector of Reformatory and Industrial Schools.

REFORMATORY AND INDUSTRIAL SCHOOLS STAFF.

HEAD OFFICE.
Great Scotland Yard, London, S.W.

Chief Inspector.—T. D. M. T. Robertson, I.S.O.

Inspectors.—The Hon. N. C. Walsh, and T. J. M. More.

Inspector and Chief Clerk.—J. L. Heath.

Assistant Inspectors.—J. C. Pearson, J. H. Melville.

Lady Assistant Inspector.—Mrs. H. E. A. Harrison.

Consulting Architect to the Department.—F. W. Troup, F.R.I.B.A., 14, Gray's Inn Square, W.C.

Bristol Agency.—100, City Road, Bristol.
Agent, F. H. Turner.

Bristol Agency for Truant Cases.—Offices of the Education Committee, Guildhall, Bristol.
Agent, J. B. Guy.

Salford Agency.—3, Lord Street, Lower Broughton, Salford.
Agent, J. R. Roberts.

Glasgow Agency.—40, North Frederick Street, Glasgow.
Chief Agent, J. M. Nicolson.

Edinburgh Agency.—9, Rankeillor Street, Edinburgh.
Agent, J. Shearer.

Aberdeen Agency.—6, Golden Square, Aberdeen.
Agent, Walter A. Reid.

Dundee Agency.—42, Barrack Street, Dundee.
Agent, I. B. Murray.

APPENDIX No. I. (A.)

LIST of CERTIFIED REFORMATORY SCHOOLS, showing their Locality, Date of Certificate, and Name of Corresponding Manager.

ENGLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Reformatory School Date of Certificate, and Name of Corresponding Manager.
1	35	BEDFORD ...	*Bedfordshire Reformatory* for Boys, Carlton, Sharnbrook, S.O., Bedfordshire. Certified for 70 boys, April 9, 1857. Certified for 80 boys, April 14, 1902. Hon. Sec., Rev. W. H. Denison, Carlton Rectory.
2	36	CHESHIRE ...	*Bradwall Reformatory* for Boys, Sandbach. Certified for 70 boys, December 27, 1855. Hon. Sec., R. Bygott, Esq., Sandbach.
3	37	DEVON ...	*Devon and Exeter Reformatory Farm School* for Boys, Whipton, Exeter. Certified for 30 boys, April 17, 1855. New certificate for 55 boys, September 14, 1900. Hon. Sec., Frank Bailey, Esq., The Castle, Exeter.
4	74	,, ...	*Devon and Exeter Reformatory and Refuge* for Girls, Polsloe Road, Exeter. Certified June 26, 1858. Certified for 60 girls, August 4, 1904. Hon. Sec., Joseph Gould, Esq., 15, High Street, Exeter.
5	75	DURHAM ..	*Sunderland Reformatory* for Girls 3, Tatham Street, Sunderland. Certified for 52 girls, June 22, 1860. Certified for 56 girls, June 22, 1907. Hon. Sec., T. E. Pumphrey, Esq., Mayfield, Sunderland.
6	71	ESSEX	"*Cornwall*" *Thames Reformatory School Ship* for Boys, off Purfleet. Certified for 260 boys, May 2, 1859. Capt. Supt., Capt. H. W. Steele, R.N., Purfleet. Sec., W. Millachip, Esq., 66, Coleman Street, E.C.
7	64	,, ...	*St. John's Reformatory* for Roman Catholic Boys, Shern Hall Street, Walthamstow, E. transferred from Boleyn Castle, East Ham, Plaistow, E. Certified for 120 boys, January 26, 1906. Certified for 126 boys, April 1, 1907. Original certificate for 180 boys, October 28, 1870. C.M., T. W. Hunter, Esq., Archbishop's House, Westminster, S.W.
8	88	GLAMORGAN ...	*Glamorganshire Farm School* for Boys, Ty Segur, Neath. Certified March 4, 1858. New school certified for 70 boys, March 12, 1875. Sec., G. R. Gibby, Esq., 18, The Ropewalk, Neath.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Reformatory School, Date of Certificate, and Name of Corresponding Manager.
9	39	GLOUCESTER ...	*Hardwicke Reformatory* for Boys, Gloucester. Certified for 80 boys, October 4, 1854. Certified for 100 boys, May 30, 1905. C.M., M. G. Lloyd-Baker, Esq., The Cottage, Hardwicke, Gloucester.
10	65	,, ...	*Kingswood Reformatory* for Boys, near Bristol. Certified October 4, 1854. Certified for 140 boys, August 1, 1904. Hon. Sec., Rev. H. E. Dandy, Kingswood Vicarage, Bristol.
—	—	, ...	*Auxiliary Home*, Fairlawn, Montague Hill, Bristol. Certified for 20 boys, June 9, 1903.
11	77	,, ...	*Arno's Court Reformatory* for Roman Catholic Girls, Arno's Vale, Bristol. Certified for 90 girls, April 22, 1856. Superioress.
12	77	,, ...	*Red Lodge Reformatory* for Girls, Bristol. Certified December 9, 1854. Certified for 45 girls, July 14, 1904. Secretary, Miss R. Eleanor Graham.
13	40	HANTS ...	*Hampshire Reformatory* for Boys, Totton, Southampton. Certified for 90 boys, November 29, 1855. Hon. Sec., W. R. Crofton, Esq., Calmoor Croft, Totton, Southampton.
14	41	HERTS	*Herts Reformatory Limited* for Boys, Chapmore End, Ware. Certified for 50 boys, November 10, 1857. Certified for 80 boys, December 1, 1900. Hon. Sec., Rev. A. W. Duke, Stapleford Rectory, Hertford.
15	72	LANCASTER ...	"*Akbar*" *Reformatory School Ship* for Boys, Rock Ferry, Birkenhead. Certified for 210 boys, January 3, 1856. At present in temporary buildings at Heswall, Birkenhead. Secretary, R. S. Blease, Esq., Liverpool Juvenile Reformatory Association, Fenwick Chambers, 8, Fenwick Street, Liverpool.
16	42	,, ...	*Liverpool Reformatory Farm School* for Boys, Newton-le-Willows. Certified for 150 boys, April 6, 1859. Secretary, R. S. Blease, Esq.
17	78	,, ...	*Liverpool Reformatory* for Girls, 6, Mount Vernon Green, Liverpool. Certified for 80 girls, June 12, 1857. Secretary, R. S. Blease, Esq.
18	73	, ...	*Farnworth Nautical School* for Roman Catholic Boys, Farnworth, Widnes, late "Clarence." Certified for 120 boys, November 10, 1905. Certified for 125 boys, April 1, 1907. Original Certificate, August 3, 1864. Secretary, Richard Yates, Esq., Central Buildings 41, North John Street, Liverpool.

Registered No.	Detailed Report, Page.	County	Name and Situation of Reformatory School, Date of Certificate, and Name of Corresponding Manager.
20	44	LANCASTER ...	*The Fylde Farm School* for Boys, Poulton-le-Fylde, Preston. Certified for 90 boys, October 16, 1857. New premises certified for 100 boys, May 31, 1905. Certified for 130 boys, August 25, 1905. Hon. Sec., Col. G. W. Rayner Wood, Singleton Lodge, Manchester.
21	45	" ...	*Birkdale Farm School Reformatory* for Roman Catholic Boys, Birkdale, near Southport. Certified for 200 boys, November 10, 1871. Sec., Richard Yates, Esq., Central Buildings, 41, North John Street, Liverpool.
22	79	" ...	*Parkhill Girls' Training Home*, 9, Park Hill Road, Liverpool. Certified for 60 girls, March 19, 1856. Certified for 65 girls, from April 1, 1906. Sec., R. S. Blease, Esq., 8, Fenwick Street, Liverpool.
23	81	" ...	*Lancashire Reformatory* for Roman Catholic Girls, May Place, Old Swan, Liverpool. Certified June 23, 1869. New school certified for 70 girls, November 24, 1876. Certified for 75 girls, February 1, 1902. Sec., Richard Yates, Esq., Central Buildings, 41, North John Street, Liverpool.
24	46	MONMOUTH ...	*Monmouthshire Reformatory* for Boys, Little Mill, near Pontypool. Certified for 35 boys, February 7, 1859. Certified for 40 boys, July 2, 1906. C.M., E. M. Byrde, Esq., The Pentre, Goytrey, Pontypool.
25	47	NORTHAMPTON	*Northampton Society's Reformatory School* for Boys, Tiffield, near Towcester. Certified for 50 boys, January 21, 1856. Certified for 90 boys, July 28, 1905. C.M., Rev. A. Wake, Courteenhall Rectory, Northampton.
26	48	NORTHUMBERLAND.	*North-Eastern Reformatory* for Boys, Netherton, near Morpeth. Certified for 210 boys, June 3, 1857. Secretary, J. T. Oliver, Esq., 11, Highbury, Newcastle-on-Tyne.
27	49	SUFFOLK ...	*Kerrison Reformatory School* for Boys, Thorndon, Eye. Certified for 84 boys, March 22 1856. Certified for 100 boys, August 22, 1902. C.M., Rev. Thos. Lee French, Thrandeston Rectory, Diss.
28	82	" ...	*Reformatory School* for Girls, Blackhorse Lane Ipswich. Certified for 45 girls, June 18 1858. C.M., T. E. Mayhew, Esq., Cornhill, Ipswich.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Reformatory School, Date of Certificate, and Name of Corresponding Manager.
29	50	SURREY ...	*Philanthropic Society's Farm School* for Boys, Redhill. Certified for 300 boys, September 2, 1856. Warden, Rev. Canon Marshall G. Vine; Secretary, J. Trevarthen, Esq.
31	52	WARWICK ...	*Saltley Reformatory* for Boys, Bordesley Green, Small Heath, Birmingham. Certified for 100 boys. August 26, 1854. Hon. Treas., Jas. Hargreave, Esq., 37, Waterloo Street, Birmingham; Secretary, J. A. Hitchins, Esq.
32	53	" ...	*Warwickshire Reformatory* for Boys, Weston, Leamington. Certified for 90 boys, November 20, 1856. Certified for 100 boys, March 8, 1904. Secretary, Walter Shepherd, Esq., 10, High Street, Warwick.
33	83	" ...	*Warwickshire Reformatory* for Girls, Kenilworth. Certified for 45 girls, February 17, 1869. New premises certified for 40 girls, March 11, 1907. Secretary, Walter Shepherd, Esq.
34	54	WILTS	*Wilts Reformatory* for Boys, Warminster. Certified for 70 boys, December 23, 1856. Certified for 90 boys, October 1, 1901. Certified for 100 boys, January 1, 1902. C.M., Rev. G. Atwood, Bishopstrow Rectory, Warminster.
35	55	WORCESTER ...	*Stoke Farm Reformatory* for Boys, Stoke Works, near Bromsgrove. Certified for 80 boys, December 9, 1854. New Certificate dated March 25, 1905. C.M., W. B. Greaves Tasker, Esq.
36	57	YORK	*Calder Farm Reformatory* for Boys, Mirfield. Certified for 110 boys, December 15, 1855. Hon. Sec., Bransby Greenwood, Esq., 29, Union Street, Dewsbury.
37	58	"	*Castle Howard Reformatory* for Boys, Welburn, York. Certified for 100 boys, May 3, 1856. Superintendent, Lt.-Col. Colin D. Johnstone.
38	67	"	*Leeds Reformatory* for Boys, Adel, Leeds. Certified for 150 boys, December 2, 1857. Hon. Sec., J. R. Ford, Esq., 61, Albion Street, Leeds.
39	59	"	*St. William's School* for Roman Catholic Boys, near Market Weighton. Certified for 225 boys, July 25, 1856. Director, Rev. C. F. Ottway. Secretary and Treasurer, J. Watkinson, Esq., 13, Lendal, York.

SCOTLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Reformatory School, Date of Certificate, and Name of Corresponding Manager.
42	184	EDINBURGH ...	*Dalry Reformatory* for Girls, Loanhead, Edinburgh. Certified for 45 girls, May 22, 1899; original premises certified April 23, 1858. Hon. Sec., Miss Ellen Harvey, 21, Regent Terrace, Edinburgh.
43	61	„ ...	*Wellington Farm School* for Boys, Penicuik, Edinburgh. Certified for 110 boys, December 24, 1859. Treasurer and Secretary, Eric M. Beilby, Esq., 4, Forres Street, Edinburgh.
44	62	FORFAR ...	*Rossie Reformatory* for Boys, Montrose. Certified for 75 boys, May 4, 1857. C.M., David Smith, Esq., 5, Castle Place, Montrose.
45	85	LANARK ...	*House of Refuge* for Girls, East Chapelton, Bearsden, near Glasgow. Certified May 16, 1879. Certified for 60 girls, July 1, 1882. Sec., E. Simpson Macharg, Esq., Herald Buildings, 69, Buchanan Street, Glasgow.
46	68	„ ...	*Parkhead Roman Catholic Reformatory* for Boys, West Thorn, Tollcross, Glasgow. Certified for 200 boys, August 9, 1859. C.M., Very Rev. Canon John Toner, St. Columbkille's, Rutherglen, Glasgow.
47	63	RENFREW ...	*Kibble Reformatory* for Boys, Paisley. Certified for 110 boys, July 2, 1859. Certified for 120 boys, October 6, 1902. Joint Secretaries and Treasurers, Messrs. Alexander Mackenzie and Joseph McLeod Lochhead, Writers, Paisley.
48	69	WIGTOWN ...	*Stranraer Reformatory* for Boys, Stranraer. Certified for 90 boys, October 1, 1859. Mr. S. J. Ferguson, Reformatory, Stranraer.

APPENDIX No. I. (B.)

LIST of CERTIFIED INDUSTRIAL SCHOOLS, showing their Locality, Name of Corresponding Manager, &c.

ENGLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
49	180	BERKS ...	*Girls' Home Industrial School*, Hill House, Cold Ash, Newbury. Certified for 30 girls, November 27, 1885. C.M., Rev. E. de M. Rudolf, Savoy Street, Victoria Embankment, W.C.
—	—	CARMARTHEN	*London County Council Auxiliary Home*, "Crugmawr," Latimer Road, Llandilo. Certified for 8 boys, March 28, 1906. C.M., R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.
50	168	CARNARVON ...	*Industrial School Ship "Clio,"* Menai Straits, Bangor. Certified for 250 boys, August 29 1877. Certified for 260 boys, October 14, 1904. Hon. Sec., E. M. Sneyd Kynnersley, Esq., 29, Eastgate Row North, Chester.
51	103	CHESHIRE ...	*Chester Industrial School.* Certified for 120 boys, June 28, 1904. Original certificate, July 3, 1863. C.M., Cecil P. Smith, Esq., Town Clerk's Office, Abbey Gateway, Chester. Closing.
52	104	„ ...	*Albert Industrial School*, Corporation Road, Birkenhead. Certified for 120 boys, March 1, 1899. Original certificate, February 14, 1866. Hon. Sec., F. Ashworth, Esq., 58, Hamilton Square, Birkenhead.
53	105	„ ...	*Stockport Industrial School* for Boys, Offerton Lane, Stockport. Certified for 150 boys, March 7, 1866, and August 16, 1898. Hon. Sec., T. Durose, Esq., 128, Shaw Heath, Stockport.
54	181	„ ...	*Stockport Industrial School* for Girls, Dialstone Lane, Stockport. Certified for 60 girls, February 6, 1877 Certified for 65 girls, December 27, 1899. Hon. Sec., T. Durose, Esq.
55	106	„ ...	*Macclesfield Industrial School* for Boys, Brook Street, Macclesfield. Certified for 150 boys, May 7, 1866. C.M., P. J. Eaton, Esq., Lyndhurst, Buxton Road, Macclesfield.
56	107	„ ...	*Bishop Brown Memorial Industrial School* for Roman Catholic Boys, Stockport. Certified for 80 boys, September 4, 1885. Certified for 100 boys, May 19, 1904. C.M., Rev. W. F. Stanley, Catholic Church, New Brighton, Birkenhead.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
—	—	CHESHIRE ...	*Auxiliary Boys' Home.* (In connection with Bishop Brown Memorial Industrial School.) Certified for 30 boys, October 18, 1892.
57	170	CORNWALL ...	*Devon and Cornwall Industrial School Ship "Mount Edgcumbe,"* Saltash. Certified for 250 boys, May 29, 1877. Hon. Sec., Charles King, Esq., 8, Princess Square, Plymouth.
—	—	„ ...	*"Goshawk."* Tender to above, certified August 12, 1899.
58	108	CUMBERLAND...	*Cumberland County Industrial School,* Cockermouth. Certified for 150 boys, August 22, 1881. C.M., C. B. Hodgson, Esq., Clerk of the County Council, Carlisle.
126	142	„ ...	*Chadwick Memorial Industrial School* for Roman Catholic Boys, Stanwix, Carlisle (late Town Moor, Newcastle-on-Tyne). Certified for 200 boys, December 27, 1882. New premises certified December 7, 1905. C.M., Rev. J. S. Cogan.
59	110	DEVON ...	*Devon and Exeter Boys' Industrial School,* Exminster. Certified for 70 boys, August 7, 1869. Certified for 80 boys, September 21, 1906. Hon. Sec., H. Ford, Esq., 25, Southernhay, Exeter.
60	182	„ ...	*Plymouth Girls' Industrial Home,* 14, Portland Villas, Plymouth. Certified for 55 girls, April 2, 1883, and June 27, 1896. Sec., Henry Greenway, Esq., 10, Athenæum Terrace, Plymouth.
61	86	DORSET ...	*Dorset County Boys' Industrial School,* Milborne St. Andrew, Blandford. Certified for 60 boys, September 30, 1881. C.M., Capt. Carr S. Glyn, Woodleaze, Wimborne.
62	183	„ ...	*Dorset Home Industrial School* for Girls, West Street, Poole. Certified for 100 girls, February 29, 1872. Certified for 85 girls, September, 6, 1906. Lady Superintendent, Miss Penney, Lynwood, Poole.
63	87	DURHAM ...	*Durham County Council Industrial School* for Boys, Earls House, Witton Gilbert, Durham. Certified for 150 boys, June 29, 1885. Clerk to the County Council, Durham.
64	111	„ ...	*Sunderland Boys' Industrial School,* Silver Street. Certified for 100 boys, June 6, 1865. Hon. Sec., G. W. Bain, Esq., 46, John Street, Sunderland.
—	—	„ ...	*Auxiliary Home,* Thomas Street, Sunderland. Certified for 20 boys, November 20, 1906. C.M., C. H. Elliot, Esq., 5 Eden Place Newcastle Road, Sunderland.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
65	171	DURHAM ...	*Tyne Industrial School Ship "Wellesley* North Shields. Originally certified July 2 1868. Present ship certified for 300 boy April 16, 1874. Secretary, George Luckley Esq., Queen Street, Newcastle-on-Tyne.
66	112	,, ...	*Green's Home Industrial School* for Boys, Mile End Road, South Shields. Certified as a branch of the "Wellesley," for 60 boys, December 19, 1884. Secretary, George Luckley, Esq.
67	112	,, ...	*Abbot Memorial Industrial School*, Gateshead-on-Tyne. Certified for 150 boys from July 1, 1905. Original certificate, January 27, 1869. Hon. Sec., Joseph G. Angus, Esq., The Cedars, Osborne Road. Newcastle-on-Tyne.
68	184	,, ...	*Sunderland Girls' Industrial School*, 4 and 5, Tatham Street, Sunderland. Certified for 60 girls, August 7, 1869. Treasurer, T. E. Pumphrey, Esq., Mayfield, Sunderland.
69	185	,, ...	*St. Joseph's Industrial School* for Roman Catholic Girls, Carmel Road, Darlington. Original certificate, March 11, 1893. Certified for 120 girls, August 16, 1898. C.M., Sister Superior.
70	113	ESSEX ...	*Essex Industrial School* for Boys, Primrose Hill, Chelmsford. Certified March 4, 1873. New premises certified for 150 boys, February 4, 1879. C.M., Mr. C. W. Hayward.
73	115	,, ...	*St. Nicholas' Industrial School* for Roman Catholic Boys, Manor Park, E. Certified for 250 boys, March 26, 1868. C.M., T. W. Hunter, Esq., Archbishop's House, Westminster, S.W.
—	—	,, ...	*Auxiliary Home*, Woodgrange House, 607, Romford Road, Manor Park, E. Certified for 24 boys from March 31, 1906.
75	186	,, ...	*Halstead Industrial School* for Girls, Halstead. Certified for 70 girls, March 12, 1869. Supt. Miss H. M. Newman, Halstead, Essex.
—	—	,, ...	*London County Council Auxiliary Home*, 68, New Road, Grays, Essex. Certified for 6 boys, March 28, 1906. C.M., R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.
196	116	GLAMORGAN ...	*Swansea Boys' Industrial School* (formerly Truant School), Bonymaen, near Swansea. Certified as an Industrial School for 65 boys, August 19, 1901. A. W. Halden, Esq., Education Offices, Dynevor Place, Swansea.
79	117	GLOUCESTER ...	*Park Row Industrial School*, Bristol. Certified for 80 boys, June 30, 1859. Hon. Sec., H. C. Trapnell, Esq., Lloyds Bank Buildings Corn Street, Bristol.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
80	118	GLOUCESTER...	*Clifton Industrial School*, Clifton Wood, Bristol. Certified for 200 boys, October 23, 1866. Sec., S. Pim Jackson, Esq., Albion Chambers, Bristol.
81	172	„ ...	*The National Nautical School* (late *Industrial School Ship "Formidable"*), Portishead, near Bristol. Certified for 350 boys, December 19, 1905. Original certificate November 18, 1869. Hon. Sec., Henry Fedden, Esq., 1, St. Stephen's Chambers, Bristol.
—	—	„ ...	*Tender to "Formidable," "Polly."* Certified February 27, 1875.
82	187	„ ...	*Bristol Industrial School* for Girls, Stanhope House, 14, Somerset Street, Kingsdown, Bristol. Certified October 23, 1867. New premises certified for 60 girls, October 31, 1884. Hon. Sec., Miss Wills, 16, Sion Hill, Clifton, Bristol.
83	188	„ ...	*Carlton House Industrial School* for Girls, Southwell Street, Bristol. Certified for 55 girls, July 7, 1874. W. A. Adams, Esq., Secretary to the Education Committee, Guildhall, Bristol.
84	88	HANTS ...	*Purbrook Industrial School* for Boys, Cosham, Hants. Certified for 70 boys, November 21, 1868. Certified for 95 boys, October 9, 1900. C.M., Miss Deverell, Purbrook Grange, Cosham.
91	119	„ ...	*Milton Industrial School* for Boys, Alexandra Road, Farnborough. Originally certified for 150 boys, March 15, 1875. New certificate for 100 boys, September 13, 1898. Certified for 150 boys from April 1, 1903. C.M., Rev. Arthur E. Gregory, The Children's Home, Bonner Road, N.E.
86	189	„ ...	*Portsmouth and South Hants Girls' Industrial School*, Sydenham House, Waterloo, Cosham. Certified for 30 girls, July 21, 1881. Certified for 36 girls January 1, 1892. Hon. Sec., Rev. C. B. Bevan, 4, St. Ronan's Road, Southsea.
87	120	HEREFORD ...	*Hereford Working Boys' Home*, Bath Street, Hereford. Certified for 115 boys, November 1, 1877. Certified for 125 boys, September 5, 1904. C.M., Arthur G. Levason, Esq., 12, Bridge Street, Hereford.
88	89	HERTS	*Church Farm Industrial School*, East Barnet. Certified for 65 boys, June 4, 1863. Certified for 90 boys, September 15, 1904. Hon. Sec., Arthur Glaisby, Esq., The Bank, New Barnet.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
90	90	KENT	*Kent County Council Industrial School* for Boys, Kingsnorth, near Ashford. Certified for 200 boys, October 26, 1875. Supt., Mr. T. S. Babington.
92	121	„ ...	*East London Industrial School* for Boys, Brookbank Road, Lewisham. Original certificate, July 1, 1859. New premises certified for 120 boys, October 28, 1884. Subsequently raised to 150. Treasurer, Herbert Jones, Esq., 42, Shooters Hill Road, Blackheath, S.E.
93	122	„ ...	*St. Vincent's Industrial School* for Roman Catholic Boys, Dartford. Certified February 9, 1872. New premises certified for 200 boys, July 31, 1878. C.M., The Brother Superior.
—	—	„ ...	*Auxiliary Home to St. Vincent's Industrial School, Dartford, and Others*, 5, Westminster Bridge Road, S.E. Certified for 53 boys, April 17, 1900.
93*a*	124	„ ...	*St. Vincent's Junior Industrial School* for Roman Catholic Boys, Northwood Road, Whitstable. Certified for 30 boys, January 4, 1899. New premises certified for 50 boys, September 19, 1903. C.M., Very Rev. Canon Edward St. John, Bishop's House, St. George's Road, Southwark, S.E.
94	124	LANCASTER ...	*Bolton Industrial School*, Lostock Junction, Bolton. Certified for 200 boys, June 13, 1870. Hon. Sec., William Nicholson, Esq., Yew Tree, Sharples, Bolton.
95	126	„ ...	*Manchester Industrial School* for Boys, Ardwick Green. Certified for 200 boys, April 6, 1859. C.M., John R. Burne, Esq., 1, St. Peter's Square, Manchester.
—	—	„ ...	*Auxiliary Home*, 59, Ardwick Green. Certified for 20 boys, November 28, 1900. Certified for 35 boys, March 22, 1901. Certified for 40 boys, December 22, 1906. Hon, Sec., C. E. Marshall, Esq., 38, Barton Arcade. Manchester.
96	190	„ ...	*Manchester Industrial School* for Girls, Sale, near Manchester. Certified for 100 girls, April 21, 1877. C.M., John R. Burne, Esq., 1, St. Peter's Square, Manchester.
97	127	„ ...	*Barnes' Home Industrial School* for Boys, Heaton Mersey, near Manchester. Certified for 275 boys, June 14, 1871. C.M., John R. Burne, Esq.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
98	128	LANCASTER ...	*St. Joseph's Industrial School* for Roman Catholic Boys, Richmond Grove, Longsight, Manchester. Certified for 350 boys, June 14, 1871. C.M., The Brother Director.
—	—	,, ...	*St. Joseph's Working Boys' Home.* Certified for 50 boys, June 24, 1882. C.M., The Brother Director.
99	191	,, ...	*St. Joseph's Industrial School* for Roman Catholic Girls, Victoria Road, Victoria Park, Manchester, and Agnew House, Lytham. Original certificate, August 2, 1871. Certified for 160 girls, September 2, 1884. C.M., Sister Superior, Mary Gunning.
100	130	,, ...	*Liverpool Industrial School* for Boys, 33, Everton Terrace, Liverpool. Certified for 200 boys, December 3, 1864. Hon. Sec., J. A. Makin, Esq., Britannia Buildings, 20, Fenwick Street, Liverpool.
—	—	,, ...	*Hornby Home for Working Boys*, 26, Village Street, Everton, Liverpool, in connection with the above. Certified for 16 boys, December 2, 1902.
101	192	,, ...	*Liverpool Industrial School* for Girls, 39, Northumberland Terrace, Liverpool. Certified for 100 girls, January 5, 1878. Hon. Sec., J. A. Makin, Esq.
103	131	,, ...	*Holy Trinity Industrial School* for Boys, 77, Grafton Street, Toxteth Park, Liverpool. Certified for 200 boys, October 3, 1870. C.M., Robert S. Blease, Esq., Fenwick Chambers, 8, Fenwick Street, Liverpool.
—	—	,, ...	*Auxiliary Home*, 67, Grafton Street. Certified for 10 boys, August 1, 1900. Certified for 12 boys, March 14, 1904.
104	194	,, ...	*Industrial School* for Girls, 13, Nile Street, Liverpool. Certified for 80 girls, November 18, 1885. C.M., Robert S. Blease, Esq.
105	132	,, ...	*St. George's Industrial School* for Roman Catholic Boys, West Derby Road, Liverpool. Certified for 275 boys, December 30, 1861. Hon. Sec., James Finney, Esq., Ramley, Oxton, Birkenhead.
—	—	,, ...	*Auxiliary Home*, 47, Everton Road, Liverpool. Certified for 28 boys, April 5, 1904.
106	134	,, ...	*Boys' Refuge Industrial School* for Roman Catholic Boys, 62, Saint Anne Street, Liverpool. Certified for 150 boys, May 10, 1869. Hon. Sec., John Martin, Esq., 4, Jordan Street, Liverpool.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
107	135	LANCASTER ...	*Orphanage Industrial School* for Roman Catholic Boys, Beacon Lane, Liverpool. Certified for 200 boys, July 21, 1868. Sister Superior, Vincent Morrogh.
—	—	„ ...	*St. Vincent's Home for Working Boys*, 105, Shaw Street, Liverpool. Certified for 75 boys, June 26, 1893. Raised to 100 from April 2, 1895. C.M., Rev. W. Pinnington, 105, Shaw Street, Liverpool.
—	—	„ ...	*St. Bernard's Home for Working Boys*, 119, Shaw Street, Liverpool. Certified for 33 boys, March 29, 1904. C.M., Rev. W. Pinnington.
—	—	„ ...	*Newman House, Home for Working Boys*, 99, Shaw Street, Liverpool. Certified for 56 boys, March 15, 1905. C.M., Rev. W. Pinnington.
107*a*	136	„ ...	*St. Thomas' Home Industrial School* for Roman Catholic Boys, Preston. Certified for 65 boys, May 29, 1901. Certified for 150 boys, October 24, 1903. C.M., The Brother Director.
—	—	„ ...	*Tulketh Hall Boys' Home*, Preston, in connection with the above. Certified for 30 boys, May 29, 1901.
108	195	„ ...	*St. Anne's Industrial School* for Roman Catholic Girls, Freshfield, near Liverpool. Certified June 13, 1867. New Certificate, for 150 girls, June 26, 1886. C.M., Sister Superior.
109	196	„ ...	*St. Elizabeth's Industrial School* for Roman Catholic Girls, 64, Breckfield Road South, Liverpool. Certified for 100 girls, December 30, 1861. Sister Superior, Mary Austin.
110*a*	197	„ ..	*Blackbrook House Industrial School* for Roman Catholic Girls, St. Helens. Certified for 30 girls, December 23, 1899. Certified for 120 girls, September 17, 1904. C.M., Miss Bridget Foley.
111	92	LEICESTER ...	*Leicester Industrial School for Boys*, Desford, near Leicester. Certified for 200 boys, January 13, 1881. Clerk to the Borough of Leicester Education Department, Leicester.
112	137	MIDDLESEX ...	*London County Council Industrial School*, Feltham. Certified for 700 boys, February 13, 1867. Superintendent, T. B. Beuttler, Esq. C.M., R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
113	139	MIDDLESEX ...	*Boys' Home*, Regent's Park Road, Primrose Hill, N.W. Certified for 120 boys, November 18, 1865. Certified for 140 boys from January 1, 1904. Hon. Sec., R. H. Glanfield, Esq.
114	140	" ...	*Field Lane Industrial School* for Boys, Hillfield Road, West Hampstead, N.W. Certified July 19, 1870. New premises certified for 100 boys, October 12, 1878, and extended to 130 November 7, 1892. Secretary, Mr. P. Platt, Field Lane Refuge, Vine Street, Clerkenwell Road, E.C.
115*a*	141	" ...	*Hayes Industrial School* for Jewish Boys, Hayes End, S.O., Middlesex. Certified for 60 boys, December 7, 1900. Certified for 65 boys, November 20, 1906. C.M., P. Ornstien, Esq., 1, 2, and 3, St. James' Place, Aldgate, E.C.
116	198	" ...	*London County Council Industrial School* for Girls, Gordon House, Richmond Road, Isleworth. Certified for 50 girls, December 1, 1897. Certified number raised to 70 girls, December 3, 1900. R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.
117	199	" ...	*Elm House Industrial Home* for Girls, Parson's Green, Fulham, S.W. Originally certified July 9, 1859. New certificate, for 40 girls, March 8, 1890. C.M., Miss B. Burney, 9, Cresswell Gardens, S.W.
119	200	" ...	*Maurice Girls' Home*, 7, Mattock Lane, Ealing, W. (late 78, Hallam Street, Portland Place, W.). Certified for 12 girls, May 4, 1867, and October 27, 1874. Certified for 30 girls, July 12, 1904. New premises certified for 32 girls, January 19, 1907. Hon. Sec., Miss Edith Garrod, 10, Harley Street, W.
120	201	" ...	*King Edward Industrial School* for Girls, Andrews' Road, Cambridge Heath, Hackney, E. Certified for 120 girls, February 15, 1872, and January 21, 1875. Treasurer, Stanley Williams, Esq., 6, Lime Street, E.C.
121*a*	202	" ...	*Nazareth House Industrial School* for Roman Catholic Girls, Richmond Road, Isleworth. Certified for 120 girls, September 11, 1899. C.M., The Sister Superior.
122*a*	203	" ...	*Industrial School for Jewish Girls*, 69, Stamford Hill, N. Certified for 30 girls, January 9, 1906. Hon. Sec., Mrs. M. E. Pyke, 10, Westbourne Terrace, W.

Registered No.	Detailed Report. Page	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
—	—	MIDDLESEX ...	*Grotto Home for Working Boys*, 55, Paddington Street, Marylebone, N.W. Certified for 40 boys, December 4, 1900. C.M., A. J. S. Maddison, Esq., Victoria House, 117, Victoria Street, S.W.
—	—	„ ...	*Auxiliary Girls' Homes.—Marylebone Home*, 24, Paddington Green, W., certified for 10 girls, November 11, 1907. *Chelsea Home*, 3, Smith Street, King's Road, S.W., certified for 8 girls, March 31, 1903. *Hackney Home*, 14, Sutton Place, Hackney, E., certified for 8 girls, March 31, 1903. *Peckham Home*, 9, Albert Road, Peckham, S.E., certified for 13 girls, September 1, 1903. *Ealing Home*, 31, Grange Park, Ealing, W., certified for 9 girls, September 1, 1903. C.M., Miss M. Poole, 66, Denison House, Vauxhall Bridge Road, S.W.
123	93	NORFOLK ...	*Buxton Industrial School*, Buxton Lamas, near Norwich. Certified for 80 boys, June 23, 1894. Certified number raised to 90 boys, September 5, 1900. C.M., E. Sewell, Esq., St. Clement's Hill, Norwich.
124	177	NORTHUMBERLAND.	*Newcastle-on-Tyne Industrial Schools*, Jubilee Road, Newcastle. Certified for 175 boys and girls, June 3, 1859. Secretary, The Right Hon. R. S. Watson, 141, Pilgrim Street, Newcastle-on-Tyne.
125	204	„ ...	*Northumberland Village Homes, Industrial School for Girls*, Whitley-on-Sea, near Tynemouth. Certified for 140 girls, June 6, 1879. Sec., George Luckley, Esq., Queen Street, Newcastle-on-Tyne.
126	142	„ ...	*Chadwick Memorial Industrial School*, see page 15.
128	205	„ ...	*Northumberland Association's Industrial Home* for Girls, Plainmellor, Haltwhistle. Certified for 26 girls, July 9, 1885. Sec., Samuel S. Drummond, Esq., 1, Mosley Street, Newcastle-on-Tyne. (Closed in 1907.)
129	144	„ ...	*St. Vincent's Industrial School for Roman Catholic Boys*, Brunel Terrace, Elswick, Newcastle-on-Tyne. Certified for 60 boys, February 24, 1894. Certified for 70 boys, October 12, 1904. C.M., Very Rev. Canon Rooney, St. Augustine's, Darlington.
89	206	OXFORDSHIRE.	*Shipton-under-Wychwood Industrial School* for girls. Certified for 30 girls, May 15, 1900. Certified for 36 girls, June 28, 1904. C.M., Rev. E. de M. Rudolf, Savoy Street, W.C.

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130	144	SOMERSET ...	*Somerset Industrial Home* for Boys, Twerton Bath. Certified for 180 boys, July 19, 1866. Hon. Sec., Miss F. Coote, 26, Marlborough Buildings, Bath.
131	94	„ ...	*Industrial School* for Roman Catholic Boys, Cannington, near Bridgwater. Certified for 100 boys, November 17, 1868. C.M., Very Rev. Canon C. H. Collingridge, Westbury-on-Trym, Bristol.
132	207	„ ...	*Industrial School* for Girls, 17, Walcot Parade, Bath. Certified September 22, 1870. New premises certified for 80 girls, April 17, 1876. Hon. Sec., Miss M. Sheppard, 26, Marlborough Buildings, Bath.
133	95	STAFFORD ...	*Staffordshire County Council Industrial School*, Werrington, near Stoke. Certified for 160 boys, March 21, 1868. C.M., Clerk to the County Council, Stafford.
134	96	„ ...	*Boys' Farm Home*, Standon Bridge, near Eccleshall. Certified for 90 boys, October 16, 1885. C.M., Rev. E. de M. Rudolf, Savoy Street, W.C.
135	208	„ ...	*Staffordshire County Council Girls' Industrial School*, Lichfield. Certified for 55 girls, October 30, 1889. C.M., Clerk to the County Council, Stafford.
135*a*	—	„ ...	*Sandwell Hall School* for Mentally Defective Children, West Bromwich. Certified for 150 children, December 28, 1907. C.M., Mrs. Hume C. Pinsent, Education Offices, Birmingham.
136	97	SUFFOLK ...	*Industrial Home* for Boys, Walsham-le-Willows, Bury St. Edmunds. Certified for 40 boys, August 3, 1896. C.M., Rev. E. de M. Rudolf, Savoy Street, W.C.
—	—	„ ...	*London County Council Auxiliary Home*, Battery Green, Lowestoft. Certified for 50 boys, June 21, 1902. C.M., R. Blair, Esq.
137	98	SURREY ...	*London County Council Industrial School* for Boys, Mayford, near Woking. Certified for 180 boys, October 29, 1884, and August 30, 1887. C.M., R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.
137*a*	146	„ ...	*London County Council Industrial School* for Little Boys, King's Avenue, Clapham Park, S.W. Certified for 30 boys, November 20, 1903. C.M., R. Blair, Esq.
137*b*	146	„ ...	*London County Council Residential Home* for Mentally Defective Boys, 50, Acre Lane, Brixton, S.W. Certified for 32 boys, May 25, 1906. C.M., R. Blair, Esq.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
138	209	SURREY ...	*Princess Mary Village Homes Industrial School* for Girls, Addlestone, near Weybridge. Certified for 140 girls, February 26, 1872. Certified for 180 girls, July 12, 1904. Sec., H. J. Brookes, Esq.
139	210	„ ...	*St. Mary's Industrial School* for Roman Catholic Girls, Wellesley Road, West Croydon, and Northwood Road, Whitstable. Certified March 20, 1871. New premises certified for 100 girls, September 1, 1886. Certificate extended to 150, March 8, 1897. C.M., Superioress, Catherine A. Dempsey.
141	100	SUSSEX ...	*Brighton Town and London County Councils' Industrial School* for Boys, Portslade, Brighton. Certified for 60 boys, June 9, 1875. Certified for 120 boys, May 3, 1902. C.M., E. Hackforth, Esq., 54, Old Steine, Brighton.
143	101	WARWICK ...	*Birmingham Town Council Industrial School* for Boys, Shustoke, Birmingham. Certified for 160 boys, February 18, 1868. C.M., J. A. Palmer. Esq., Secretary, Education Department, Edmund Street, Birmingham.
144	147	„ ...	*Birmingham Industrial School* for Boys, Balden Road, Harborne, Birmingham (late Gem Street). Certified for 150 boys, March 26, 1868. New certificate for 150 boys, dated December 20, 1902. Sec., G. C. T. Parsons, Esq., 120, Colmore Row, Birmingham.
145	211	„ ...	*Girls' Industrial Home*, Leicester Street, Coventry. Certified January, 1862. New premises certified for 28 girls, October 5, 1889. Certified for 32 girls, September 2, 1904. Certified for 50 girls from May 1, 1905. Sec., Vaughan W. Robinson, Esq., High Street Chambers, Coventry.
146	212	WILTS... ...	*St. Elizabeth's Industrial School* for Roman Catholic Girls, Exeter Street, Salisbury. Certified for 65 girls, December 19, 1870. Certified for 100 girls, November 2, 1899. Certified for 110 girls, September 24, 1904. C.M., Sister Superior.
147	213	YORK	*Hull Industrial School* for Girls, Park Avenue Hull. Certified October 25, 1884. New premises certified for 60 girls, July 17, 1888. C.M., J. T. Riley, Esq., Education Offices, Albion Street, Hull.
148	173	„	*Humber Industrial School Ship "Southampton,"* Hull. Certified for 250 boys, July 31, 1868. Secretary, F. C. Manley, Esq., 16, Bowlalley Lane, Hull.

Registered No.	Detailed Report, Page.	County.[1]	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
149	148	YORK	*Leeds Industrial School* for Boys, Shadwell Lane, Leeds. Originally certified March 25, 1862. New certificate May 22, 1877. New premises certified for 180 boys, June 19, 1879. James Graham, Esq., Secretary to Education Committee, Calverley Street, Leeds.
150	214	„ ...	*Leeds Industrial School* for Girls, Windsor House, Windsor Street, Burmantofts, Leeds. Certified for 85 girls, September 22, 1870. Hon. Sec., John Town, Esq., 81, Albion Street, Leeds.
151	215	„ ...	*Leeds Industrial School* for Girls, Thorparch, Boston Spa, R.S.O. Certified for 100 girls, January 4, 1896. James Graham Esq., Secretary to Education Committee, Calverley Street, Leeds.
152	149	„ ...	*York Industrial School* for Boys, Marygate, York. Certified for 120 boys, July 18, 1858. Hon. Sec., Major W. A. Taite, Pinehurst, The Mount, York.
153	217	„ ...	*York Industrial School* for Girls, Lowther Street, York. Certified for 50 girls, June 25, 1877. C.M., Donald S. Mackay, Esq., The Red House, Duncombe Place, York.
154	150	„ ...	*Middlesbrough Industrial School* for Boys, Linthorpe, Middlesbrough. Certified for 60 boys, November 19, 1874. C.M., J. S. Calvert, Esq., Municipal Buildings, Middlesbrough.
155	151	„ ...	*Shibden Industrial School* for Roman Catholic Boys, Shibden, near Halifax. Certified for 150 boys, November 1, 1877. C.M., John L. Lister, Esq., Shibden Hall, near Halifax.
—	—	„ ...	*St. Vincent's Auxiliary Home*, Howarth Street, Leeds. Certified for 45 Roman Catholic Boys, December 6, 1898. C.M., Rev. J. R. Cowgill.
—	—	„ ...	*Bradford Catholic Working Boys' Home*, 147, Grafton Street, Bradford. Certified for 8 Roman Catholic Boys, December 13, 1902.
156	218	„ ...	*Yorkshire Industrial School* for Roman Catholic Girls, Howard Hill, Sheffield. Certified for 120 girls, November 16, 1875, and September 24, 1887. Manager, Sister Superior Monica Weld (Sister Magdalen).
157	219	„ ...	*Beckett Home* for Girls, Meanwood, Leeds. Certified for 30 girls, May 19, 1887. C.M., Rev. E. de M. Rudolf, Savoy Street, W.C.

SCOTLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
158	153	ABERDEEN ...	*Aberdeen Industrial School* for Boys, Oakbank, Aberdeen. Certified May 15, 1855. New premises certified for 250 boys, November 26, 1879. Sec., John Paton Cumine, Esq., 8, Golden Square, Aberdeen.
160	220	,, ...	*Aberdeen Female School of Industry*, Whitehall, Aberdeen (formed by the amalgamation of Aberdeen Girls' Industrial School and North Lodge School). New certificate for 80 girls, January 1, 1903. Original certificates, May 15, 1855, and December 16, 1870. Sec., C. Diack, Esq., 1, King Street, Aberdeen.
161	221	,, ...	*Aberdeen Industrial School* for Roman Catholic Girls, Nazareth House, Claremont, Holburn, Aberdeen. Certified for 100 girls, August 3, 1877. Certified for 130 girls, November 22, 1902. C.M., Rev. John C. Meany, Cathedral House, Aberdeen.
162	154	AYR	*Ayr Industrial School* for Boys, St. Leonard's Road, Ayr. Certified October 13, 1855. New premises certified for 100 boys, December 14, 1876. Sec., James Dunlop, Esq., 2, Barns Street, Ayr.
—	—	,, ...	*Auxiliary Home*, King Street, Ayr. Certified for 8 boys, April 19, 1907.
163	222	,, ...	*Ayr Industrial School* for Girls, Belmont Avenue, Ayr. Certified for 55 girls, January 14, 1899. Certified for 60 girls, June 19, 1903. Originally certified, October 13, 1855. Sec., Jas. Dunlop, Esq.
164	179	,, ...	*Kilmarnock Industrial School.* Certified for 105 boys and girls, June 2, 1855. Hon. Sec., W. Middlemas, Esq., Town Hall, Kilmarnock.
165	174	DUMBARTON...	*Glasgow Industrial School Ship "Empress,"* off Row, near Helensburgh. Certified June 25, 1869. New certificate for 400 boys, October 1, 1890. Secretary, J. Anderson Gray, Esq., 156, St. Vincent Street, Glasgow.
—	—	LANARK ...	*Auxiliary Home*, 120, North Montrose Street, Glasgow. Certified for 10 boys, July 13, 1903.
166	155	DUMFRIES ...	*Dumfries and Maxwelltown Industrial School*, Burns Street, Dumfries. Certified for 120 boys, April 22, 1856. Secretary, W. Moodie, Esq., 106, Irish Street, Dumfries.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
167	156	EDINBURGH ...	*Original Industrial School* for Boys, Liberton, near Edinburgh. New premises certified for 200 boys, April 6, 1887. Old certificate dated June 2, 1855. Secretary, J. Forbes Moncrieff, Esq., 22, Hill Street, Edinburgh.
168	223	,, ...	*Original Industrial School* for Girls, Gilmerton, Edinburgh. Certified for 75 girls, September 24, 1904. Original certificate dated November 25, 1875. Secretary, J. Forbes Moncrieff, Esq.
—	—	,, ...	*Auxiliary Girls' Home*, Brunswick Road, Leith Walk, Edinburgh. Certified for 25 girls, September 28, 1904. Now closed.
—	—	,, ...	*Catholic Working Boys' Home*, 52, Lauriston Place, Edinburgh. Certified for 24 boys, June 13, 1891. Fresh certificate issued for 60 boys, March 16, 1897. C.M., F. J. Smith, Esq.
170	157	,, ...	*Leith Industrial School* for Boys, Lochend Road, Leith. Certified for 135 boys, September 15, 1869. Hon. Sec., John Macintosh, Esq., 70, Constitution Street, Leith.
171	224	,, ...	*Victoria Industrial School* for Girls, Restalrig Road, Leith. Certified for 60 girls, April 1, 1889. Originally certified, September 15, 1869. C.M., John Macintosh, Esq., 70, Constitution Street, Leith.
172	162	HADDINGTON .	*St. Joseph's Industrial School* for Roman Catholic Boys, Tranent, near Edinburgh. Certified for 100 boys, June 22, 1889 ; raised to 200, September 10, 1896. C.M., William Considine, Esq., 2, Queen Street, Edinburgh.
173	158	FORFAR ...	*Arbroath Industrial School.* Certified for 30 boys, May 18, 1855. Hon. Sec., Rev. William Duke, D.D., St. Vigean's Manse, Arbroath.
174	159	,, ...	*Dundee Industrial School* for Boys, Baldovan, near Dundee. Originally certified March 30, 1861. New certificate for 200 boys, May 8, 1878. C.M., W. M. Dickson, Esq., Tay View, Baldovan, Dundee.
—	—	,, ...	*Dundee Working Boys' Home*, Auxiliary Branch, 7, Park Place, Dundee. Certified for 20 boys, November 24, 1899. Certified for 26 boys, October 6, 1903.
175	225	,, ...	*Dundee Industrial School* for Girls, Balgay Park, Dundee. Certified for 80 girls, March 30, 1861. New premises certified for 120 girls, June 2, 1896. C.M., W. M. Dickson, Esq.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
176	176	FORFAR ...	*Industrial School Ship "Mars,"* Dundee. Certified for 400 boys, September 30, 1869. Secretary, A. Mackay, Esq., 22, Meadowside, Dundee.
—	—	„ ...	*Tender to "Mars," "Francis Molison."* Certified March 12, 1875.
—	—	GLAMORGAN ...	*"Mars" Auxiliary Home*, 219, Penarth Road, Cardiff. Certified for 6 boys, November 13, 1895.
177	160	LANARK ..	*Glasgow Industrial School* for Boys, Mossbank, Millerston, near Glasgow. Certified for 375 boys, January 15, 1868. Secretary, E. Simpson Macharg, Esq., Herald Buildings, 69, Buchanan Street, Glasgow.
—	—	„ ...	*Auxiliary Home* for 25 working boys in connection with above, Rotten Row, Glasgow.
178	226	„ ...	*Glasgow Industrial School* for Girls, Maryhill. Originally certified March 10, 1855. New certificate for 200 girls, February 23, 1882. Secretary, E. Simpson Macharg, Esq.
179	162	„ ...	*St. Mary's Roman Catholic Orphanage and Industrial School* for Boys, Kenmure, Bishopbriggs, Glasgow. Certified for 200 boys, July 18, 1905. Original certificate November 25, 1862. C.M., Very Rev. Canon Dyer, 68, Abercromby Street, Glasgow.
180	228	„ ...	*St. Mary's Roman Catholic Industrial School* for Girls, Abercromby Street, Glasgow. Certified for 190 girls, November 25, 1862. Manager, The Sister Superior.
181	163	„ ...	*Slatefields Industrial School* for Roman Catholic Boys, Gallowgate, Glasgow. Certified for 150 boys, December 14, 1867. C.M., Very Rev. Canon Dyer, 68, Abercromby Street, Glasgow.
182	229	„ ...	*Dalbeth Industrial School* for Roman Catholic Girls, Dalbeth House, Parkhead, Glasgow. Certified for 150 girls, May 12, 1892. C.M., The Mother Superior.
183	164	PERTH ...	*Fechney Industrial School* for Boys, Wells Hill, Perth. Certified for 150 boys, March 7, 1864. C.M., John Thomas, Esq.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.
184	230	PERTH ...	*Perth Ladies' House of Refuge* for Girls, Craigie, near Perth. Certified for 60 girls, February 19, 1857. C.M., James Coates, Esq., Pitcullen House, Perth.
185	231	„ ...	*Girls' School of Industry*, Wells Hill, Perth. Certified for 60 girls, June 7, 1870. Treasurer, George A. Miller, Esq., 10, Blackfriars Street, Perth.
—	—	„ ...	*Auxiliary Home* in connection with the above, 59, North Methven Street, Perth. Certified for 6 girls, November 24, 1903.
186	166	RENFREW ...	*Greenock Industrial School* for Boys, Captain Street. Certified for 150 boys, April 15, 1855. C.M., M. F. Dunlop, Esq., 2, Church Place, Greenock.
187	232	„ ...	*Friendless Girls' Home, Brachelston Street, Greenock.* Certified for 30 girls, December 29, 1896. Extended to a maximum of 38, December 15, 1898. Certified for 40 girls, February 6, 1902. Hon. Treas., Miss H. B. Carmichael, 93, Finnart Street, Greenock.
188	167	„ ...	*Paisley Industrial School* for Boys, Albion Street, Paisley. Certified for 150 boys, November 8th, 1906. Originally certified, June 22, 1870. C.M., James A. Young, Esq., 4, Gilmour Street, Paisley.
191	233	STIRLING ...	*Stirling Industrial School* for Girls, Stirling. Certified for 30 girls, May 5, 1868. Hon. Sec., J. G. Curror, Esq., 2, Dumbarton Road, Stirling.
192	234	WIGTOWN ...	*Industrial Home for Girls*, Newton Stewart Certified for 50 girls, January 17, 1862. Secretary, A. B. Matthews, Esq., Newton Stewart.

APPENDIX No. I. (C.)

LIST of CERTIFIED TRUANT INDUSTRIAL SCHOOLS, showing their Locality, Name of Corresponding Manager, &c.

ENGLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Truant Industrial School, Date of Certificate, and Name of Corresponding Manager.
194	235	ESSEX	*North London Truant Industrial School*, High Street, Walthamstow, under the joint management of the Tottenham, Hornsey, and Edmonton Education Committees. Certified for 120 boys, May 10, 1884. T. P. Penn, Esq., Education Offices, Tottenham, N.
195	236	„ ...	*West Ham Truant Industrial School*, Fyfield, Ongar, Essex. Certified for 80 boys, May 19, 1885. F. E. Hilleary, Esq., Offices of West Ham Education Committee, 95, The Grove, Stratford, E.
197	237	GLAMORGAN ...	*South Wales and Monmouthshire Truant Industrial School*, Quaker's Yard, Treharris, S.O. Certified for 90 boys, November 8, 1893. E. Stephens, Esq., Town Hall, Merthyr Tydfil.
197*a*	238	„ ...	*Cardiff and Barry Truant Industrial School*, Dinas Powis, Cardiff. Certified for 120 boys, April 21, 1899. John J. Jackson, Esq., Education Offices, City Hall, Cardiff.
198	239	GLOUCESTER ...	*Bristol Truant Industrial School*, 12, Southwell Street, Bristol. Certified for 50 boys, July 27, 1883. William A. Adams, Esq., Secretary to the Education Committee, Guildhall, Bristol. Closed in 1907.
199	239	LANCASTER ...	*Liverpool Truant Industrial School*, Hightown, near Liverpool. Certified for 160 boys, December 13, 1878. J. G. Legge, Esq., Director of Education, Sir Thomas Street, Liverpool.
200	241	MIDDLESEX ...	*London County Council Truant Industrial School*, Upton House, Urswick Road, Homerton, E. Original certificate, October 8, 1878. Certified for 150 boys, April 6, 1896. R. Blair, Esq., London County Council Education Department, Victoria Embankment, W.C.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Truant Industrial School, Date of Certificate, and Name of Corresponding Manager.
201	242	MIDDLESEX ...	*London County Council Truant Industrial School*, Highbury Grove, N. Certified for 200 boys, January 1, 1894. Original certificate, March 12, 1891. R. Blair, Esq.
202	243	" ...	*Chiswick and Heston Truant Industrial School*, Holme Court, Isleworth. Original certificate, May 15, 1891. Certified for 82 boys, February 21, 1901. Stephen Eslick, Esq., Holme Court, Isleworth, W.
203	244	STAFFORDSHIRE.	*Burton-on-Trent, Walsall, and West Bromwich Truant Industrial School*, Beacon Street, Lichfield. Certified for 100 boys, December 28, 1893. W. N. Graham, Esq., Clerk to the Education Committee, Burton-on-Trent.
205	245	YORK	*Hull Truant Industrial School* for Boys, Marlborough Terrace, Hull. Certified for 100 boys, July 1, 1884. J. T. Riley, Esq., Education Offices, Albion Street, Hull.
206	246	"	*Sheffield Truant Industrial School*, Hollow Meadows, near Sheffield. Certified for 90 boys, March 5, 1879. G. S. Baxter, Esq., Secretary to the Education Committee, Leopold Street, Sheffield.

SCOTLAND.

Registered No	Detailed Report, Page.	County.	Name and Situation of Truant Industrial School, Date of Certificate, and Name of Corresponding Manager.
206*a*	247	LANARK ...	*Glasgow School Board Truant Industrial School*, Shettleston, near Glasgow. Certified for 150 boys, June 27, 1905. Certified for 160 boys, November 15, 1906. John Clark, Esq., Clerk to the School Board, 129, Bath Street, Glasgow.

APPENDIX No. I. (D.)

LIST of CERTIFIED DAY INDUSTRIAL SCHOOLS, showing their Locality, Name of Corresponding Manager, &c.

ENGLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Day Industrial School Date of Certificate, and Name of Corresponding Manager.
208	248	GLOUCESTER ...	*Bristol Day Industrial School*, Temple Backs, Bristol. Certified October 3, 1877. New certificate May 29, 1889. Certified number fixed at 208, June 5, 1903. W. A. Adams, Esq., Secretary to the Education Committee Guildhall, Bristol
209	249	LANCASHIRE ...	*South Corporation Day Industrial School*, Northumberland Street, Liverpool. Certified May 4, 1878. Certified number fixed at 250, June 5, 1903. New premises certified for 300 children, January 31, 1908. J. G. Legge, Esq., Directory of Education, Sir Thomas Street, Liverpool.
210	250	,, ...	*Kirkdale Day Industrial School*, Major Street, Kirkdale, Liverpool. Certified August 27, 1878. Certified number fixed at 550, December 7, 1903. J. G. Legge, Esq. Closed in 1907.
210*a*	—	,, ...	*Walton Road Day Industrial School*, Liverpool. Certified for 300 children, October 9, 1907. J. G. Legge, Esq.
211	252	,, ...	*Bond Street Day Industrial School*, Bond Street, Liverpool. Certified June 15, 1878, and May 16, 1888. Certified number fixed at 300, June 5, 1903. J. G. Legge, Esq.
212	253	,, ...	*Queensland Street Day Industrial School*, Queensland Street, Liverpool. Certified February 4, 1884. Certified number fixed at 280, June 5, 1903. J. G. Legge, Esq.
213	255	,, ...	*Addison Street Day Industrial School*, Addison Street, Liverpool. Certified for 300 children, March 6, 1891. J. G. Legge, Esq.
214	256	,, ...	*Manchester Day Industrial School*, Mill Street, Ancoats, Manchester. Certified for 300 children, January 11, 1889. C. H. Wyatt, Esq., Director of Elementary Education, Deansgate, Manchester.
215	258	,, ...	*Salford Day Industrial School*, Albion Street, Salford. Certified for 280 children, October 6, 1885. O. Duthie, Esq., Administrator for Elementary Education, Chapel Street, Salford.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Day Industrial School, Date of Certificate, and Name of Corresponding Manager.
216	259	LANCASHIRE ...	*Blackburn Day Industrial School*, Mayson Street, Blackburn. Certified October, 1890. Certified number fixed at 150, January 11, 1904. Alexander Gow, Esq., Director of Education, Blackburn. Closed in 1907.
218	260	„ ...	*Bootle Day Industrial School*, Marsh Lane, Bootle. Certified December 3, 1895, for 300 children. F. K. Wilson, Esq., Secretary for Elementary Education, Elementary Education Offices, Bootle.
219	261	LONDON ...	*London County Council Day Industrial School*, Goldsmith Street, Drury Lane, W.C. Certified August 23, 1895, for 200 children. R. Blair Esq., London County Council Education Department, Victoria Embankment, W.C.
220	263	„ ...	*London County Council Day Industrial School*, Brunswick Road, Poplar, E. Certified September 12, 1901, for 150 children. R. Blair, Esq.
221	264	„ ...	*London County Council Day Industrial School*, Ponton Road, Nine Elms Lane, S.W. Certified April 7, 1902, for 150 children. R. Blair, Esq.
224	265	STAFFORD ...	*Wolverhampton Day Industrial School*, Salop Street, Wolverhampton. Certified September 2, 1881. Certified number fixed at 140, June 11, 1903. B. H. Preston, Esq., Secretary to the Education Committee, Wolverhampton.
225	266	YORK	*Edgar Street Day Industrial School*, Edgar Street, Leeds. Certified July 22, 1881. Certified number fixed at 180, June 5, 1903. Jas. Graham, Esq., Secretary to the Education Committee, Calverley Street, Leeds.
226	267	„ ...	*Czar Street Day Industrial School*, Czar Street, Holbeck, Leeds. Certified October 20, 1891. Certified for 100 children, April 5, 1898. Certified number fixed at 120 from January 1, 1899. Jas. Graham, Esq.

SCOTLAND.

Registered No.	Detailed Report, Page.	County.	Name and Situation of Day Industrial School, Date of Certificate, and Name of Corresponding Manager.
226*a*	268	EDINBURGH ...	*Edinburgh School Board Day Industrial School*, St. John's Hill, Edinburgh. Certified for 160 children, July 18, 1898. G. W. Alexander, Esq., Clerk to the School Board, Edinburgh.
227	270	LANARK ...	*Green Street Day Industrial School*, Calton, Glasgow. Certified October 1, 1879. Certified number fixed at 250, June 5, 1903. Sec., E. Simpson Macharg, Esq., Herald Buildings, 69, Buchanan Street, Glasgow.
228	271	,, ...	*Rotten Row Day Industrial School*, 61, Rotten Row, Glasgow. Certified August 15, 1882. Certified number fixed at 250, June 5, 1903. Sec., E. Simpson Macharg, Esq.
229	272	,, ...	*Rose Street Day Industrial School*, Hutcheson Town, Glasgow. Certified for 250 children May 6, 1889. Sec., E. Simpson Macharg, Esq.
230	274	,, ...	*William Street Day Industrial School*, Anderston, Glasgow. Certified for 100 children, August 19, 1902. Sec., E. Simpson Macharg, Esq.

APPENDIX No. II. (A.)

REFORMATORIES.—Boys. Farm and Country.

Bedfordshire.

Visited.—12th April and 24th April, 1907.

Inmates.—Total number in school, 80; voluntary cases, 0; on licence, 6; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. Ernest Silkstone. The labour-master was discharged and his place filled by a band, drill and labour-master.

Premises.—The drains have been thoroughly over-hauled and many portions re-laid. New tailors' and shoemakers' shops have been opened. One dormitory has been fitted with new bedsteads and bedding, and the whole of the premises has been painted and decorated by the boys. The committee have in view the renovation of the lavatory; and as funds permit will no doubt improve other parts of the premises.

Standards with awards.—Standard VI, 8, good; Standard V, 10, good; Standard IV, 19, good; Standard III, 22, good; Standard II, 7, good; Standard I, 8, good; Preparatory, 4, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Recitation, good. Composition, good—above the average. Mental arithmetic, very fair in V and III, good in other standards. History, good. Elementary science, good. The development of intelligence is good.

Industrial training.—Drawing had been in abeyance, but a really promising re-commencement has been made. Simple technical instruction has been given in the tailoring shop. With a properly set out scheme of lessons this should soon develop well. Five boys are engaged in shoe-mending. The large farm, and the stock, give good experience to the boys. There are nine regular farm boys, most of whom do milking, while two can plough. Other of the higher operations, such as thatching, might well be introduced to the boys, with good promise of success. Three boys do the domestic baking. This is one of the very few schools now without a wood-working department. If such a department were started, even only in a small way, there would soon be found a return in the making and repairing of various articles and appliances needed in a farm school. A brass band of 21 boys has been formed, and there is also a bugle band of 12. Eleven boys have this year gone into the army.

Physical training, &c.—Free gymnastics are taken by the whole school for a short time every day, and applied gymnastics by a squad of 18. Although much improved, this side of the school is capable of further development; the time devoted to it might well be doubled. The harrier team has been out many times, and regular instruction in swimming has been given in the

river. The schoolmaster has trained the cricket and football teams. At the H.O. schools sports the Mile Challenge Cup was shared by this school.

Health.—One boy has been discharged suffering from heart disease following on rheumatic fever. There have been some cases of influenza and a good many boils, some feverish attacks and sore throats. It was considered advisable to overhaul the drains, and this has been done. On the day of examination a boy was in hospital with fistula. Other cases which have been treated have been hernia, appendicitis, varicose veins, two of conjunctivitis, and a few skin troubles.

Conduct.—A boy absconded on the superintendent's bicycle, and was away for a few weeks. Another, who stole money from the schoolmaster, has been troublesome since he left the school. There have been some cases of pilfering, bullying, smoking, and disobedience. The general tone of the school appears to be good.

General remarks.—The anticipation of good work in last year's report has been fully borne out by results this year. A special word of praise is due to the schoolmaster for the improvement in his department.

Bradwall.

Visited.—25th February, 24th January, 15th November, 1907.

Inmates.—Total number in school, 70*; voluntary cases, 0; on licence, 24; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. Edward Shaw. There is no change to record in the staff.

Premises.—There has been no change in the premises.

Standards with awards. — Standard VI, 11, good; Standard V, 12, good; Standard IV, 19, good; Standard III, 16, good; Standard II, 6, good; Standard I, 5, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Mental arithmetic, good. Geography, good. Recitation, very fair. Composition, good. The development of intelligence is good.

Industrial training.—Attention to finish will much improve the drawing. In the little tailoring shop better attention might well be given to technical instruction. The great industry here is market gardening and fruit growing, in which practically all he boys take part. No school's grounds are under more thorough and orderly cultivation, and, in addition, the boys take a practical part in the higher operations (such as pruning) of fruit culture. N.B.—Six boys are learning shorthand.

Physical training, &c.—The school is behind hand in free gymnastics. A good course should be devised for exercising every muscle in the body and not those of the arms and chest alone. At

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* Including 1 in hospital.

football and cricket no outside matches are played, but games are regularly played among the boys. The boys gave a concert at Christmas.

Health.—There was a death in March, 1906, from softening of the brain. A boy who was suffering from phthisis in May has improved remarkably. There have been some cases of influenza. Two boys suffer from epileptic fits, and it is questionable how far they are fitted for the discipline of the school. There was a bad case of chilblains in hospital on the day of inspection.

Conduct.—Two boys have been punished for absconding from licence, and others for pilfering, bullying, disobedience and cruelty to an animal. The list of offences is not a long one, and the general tone of the school appears to be good. There is a mark system carrying rewards in money.

General remarks.—The position of the school must remain one of anxiety until the Committee will face their responsibility in the matter of housing the lads properly. It is to be hoped that all difficulties will be surmounted and the future of this useful school secured on a permanent and satisfactory basis.

Devon and Exeter.

Visited.—10th July, 1st August, and 30th August, 1907.

Inmates.—Total number in school, 55 ; voluntary cases, 0 ; on licence, 9 ; absconders, 0.

Staff.—Mr. J. Twigg succeeded Mr. J. R. Sheppard (t. and c.) as superintendent and head schoolmaster on 2nd December, 1907. Matron, Mrs. Twigg. There has been a change of labour-master.

Premises.—The school has been connected with the City water supply, and an additional boring has been made on the premises. The school has been painted and cleaned throughout by four boys ; and the only part which does not seem to have received attention is the schoolmaster's cottage. Crockery mugs and basins have been provided in place of enamelled ware.

Standards with awards.—Standard VI, 9, good ; Standard V, 15, good ; Standard IV, 9, very fair ; Standard III, 13, very fair ; Standard II, 4, very fair ; Preparatory, 4, making good progress. The general award is very fair. Work shows distinct improvement, and should be good next year.

Class subjects.—Singing—sol-fa. Composition, good in VI and V. This should be taught throughout. Recitation, very fair ; not always understood. Mental arithmetic, just good in VI and V, but weak generally. Geography, very fair. History readers have been in use. Some useful object lessons have been given. Intelligence is developing on good lines.

Industrial training.—Drawing is good in the three lower standards, but requires extra attention in those above. The little woodworking department merits encouragement, the chief requirement at the present time is finish. It is hoped that technical instruction in tailoring may soon be provided for. The

market-garden boys receive a thoroughly practical training. It would be good if lessons on the theory of horticulture could be given to these boys. This department is well worthy of all possible encouragement. The drum and fife band is kept up. It might be possible to devise means for the more effective supervision of old boys.

Physical training, &c.—A spirited display of free gymnastics was given under the schoolmaster's direction. A few exercises on the parallel bars and over the horse showed how greatly these boys would benefit by a gymnasium. Cricket and football are played, and provision is made for indoor recreation.

Health.—A boy died suddenly at the end of last year from pneumonia. Another is undergoing hospital treatment for tubercular abscess. Chilblains appear to have been frequent last winter, otherwise the health has been satisfactory.

Conduct.—The most serious case was one, involving three boys, of stealing flower seeds from a house where they were working. Pilfering food is among the most frequent causes of complaint, and several boys have given trouble in other ways. There were two cases of absconding by new boys. Aided by a mark system the general conduct has been good.

General remarks.—Various improvements are being effected and the general outlook is hopeful.

Glamorganshire.

Visited.—8th May and 3rd July, 1907.

Inmates.—Total number in school, 64; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. Frank Goode. Sergeant Sparey was reappointed gymnastic instructor 2nd October, 1906.

Premises.—The school has been connected with the town main drain. The cowhouse and stables have been paved and cemented. A new piece of land has been secured for football and cricket. The boys have the use of a pond for bathing. Slippers have been provided for use in the school after work hours.

Standards with awards.—Standard VI, 8, good; Standard V, 9, good; Standard IV, 15, good; Standard III, 13, good; Standard II, 14, good; Preparatory, 5, 3 defective boys and 2 new comers. The general award is good. There is an extra class of 11 boys who have made a beginning with algebra, euclid, and mensuration.

Class subjects.—Singing has been in abeyance for three months. Composition, fairly good. Recitation, fairly good. Geography, good. Mental arithmetic, very fair. Object lessons have been given throughout. The development of intelligence is good.

Industrial training.—There was a striking improvement in drawing. Manual instruction has so far justified itself as to call

for extension of quarters and equipment, so that more boys could be taught at one time. Technical instruction is receiving some attention in the tailoring shop. The farm and garden boys would also benefit by receiving information on matters surrounding their special department of work. There is a welcome spirit of enterprise in the school which might well be taken advantage of by organizing definite schemes of technical instruction. A definite system has been started of obtaining and recording information as to the boys' homes and parentage.

Physical training, &c.—The free and applied gymnastics were smart and full of energy. The boys have given several displays in the town and are deservedly popular. At cricket and football the boys have been very successful in matches with outside teams. They have also been privileged to attend matches and concerts in the town as well as entertainments in the school.

Health.—The general health has been good. There is a boy who is suffering from tubercular abscess of the hip; he will probably be sent to hospital. Other boys have been treated for scrofula, ulcer of leg, shingles, and eczema. A boy is at present troubled with iritis, and another new boy has bad chilblains. In February 20 boys had bad coughs and colds, and since then the singing in the schoolroom has been stopped. The school has not been troubled with boils as in other years. It would be as well if the boys' teeth were regularly inspected by a dentist.

Conduct.—The conduct has not given much trouble. The most serious case for the year was that of a boy who stole some spirits from a house at which he was at work. Other offences have been of pilfering, indecency, smoking and impudence.

General remarks.—The school has to mourn the death of Mr. Gibbins, who for so long, as chairman of the committee, took a deep interest in the boys. Steady improvement can be reported in all departments. One would be glad to see an extension of the carpenters' shop.

Hardwicke.

Visited.—23rd July, 8th July, and 27th March, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0; on licence, 14; absconders, 2.

Staff.—Superintendent and matron, Mr. W. Robinson (t. & c.) and Mrs. Robinson. Mr. W. V. Saunders (t. & c.) left 8th June, 1906; Mr. Rand was promoted to his place. Mr. Wilson Vickery was appointed assistant teacher 9th June, 1906.

Premises.—There has been no change in the premises. All parts were clean and in order.

Standards with awards.—Standard VI, 21. good; Standard V, 20, very fair; Standard IV, 14, good; Standard III, 23, very fair; Standard II, 13, very fair; Standard I 5, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, very fair in V, good in VI. Recitation, very fair in III and IV, fair in V and VI; it had not been taught in the lower standards. Mental arithmetic, good in VI and IV, very fair in other standards. Geography, good, but not taught in I and II. History, good in V and VI. The development of intelligence is on very fair lines.

Industrial training.—Drawing will require much attention to bring it up to the average quality of work found in the schools. It is hoped that a carpentering department will soon be started. Technical instruction is likely to be made a special feature of the tailors' shop in the near future. The careful system of recording the milk yield, the experimental work with potatoes (as to kinds and locality) and the manurial experiments with hay, together with the County Council lectures and the boys' own garden plots (of which there are 32, worked by 64 boys), make up an admirable system of farm and garden training.

Physical training, &c.—The course of physical training is still inferior to that in many schools. The exercises for the arms and chest were well done by a junior squad, but other parts of the body need development. This is more apparent when the apparatus is tackled. The matter is, however, engaging the attention of the committee. The boys play football and cricket, and there is harrier running as well. Rifle shooting, too, is taught in the play field and schoolroom.

Health.—One boy was discharged, being an epileptic. There is a boy now in school who has been operated on for tubercular disease; he is in a very delicate state still. The doctor recommended his discharge, and also that of a boy with tubercular ulcer of the eye. The Committee, however, have determined to do what they can for them. There have been two cases of pleurisy, one of which is now in the infirmary.

Conduct.—There has been little trouble in this respect. Stealing, smoking, and impertinence have had to be corrected. The boys appear to be managed with firmness and tact. They are straightforward and cheerful in demeanour.

General remarks.—The schoolroom work has improved, but there is still room for improvement in the lower standards. It is gratifying to see this old-established school steadily advancing.

Hants.

Visited.—2nd August and 27th July, 1907.

Inmates.—Total number in school, 45; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. F. Harold. Mr. A. Lima, school and bandmaster, who was appointed 17th September, 1906, left 29th December, 1906. Mr. R. Albury was appointed 24th January, but left 6th May, 1907. Mr. Vere Harold was appointed general assistant, 6th April, 1907.

Premises.—Parts of the main building have been painted, but nothing has been done in the way of permanent improvements.

Standards with awards.—Standard VI, 5, very fair; Standard V, 5, fair; Standard IV, 13, good; Standard III, 14, fair; Standard II, 8, fair. The general award is fair.

Class subjects.—Singing, by ear. A little staff notation has been given. Composition, very fair. Recitation, very fair. Mental arithmetic, good in IV, poor in V, fair otherwise. Geography, outlines have been given to all. Useful lessons in physiology have been given by the superintendent. Intelligence is very fair.

Industrial training.—A selection of the boys have done some very creditable work in drawing. Several boys have received general training in woodwork, and four are regularly engaged in estate-carpentry about the premises. Tailoring, repairs occupy seven boys. The staple occupations are farming and market-gardening, including greenhouse work, in which the boys receive a thoroughly practical training.

Physical training, &c.—Drill has suffered in common with other departments, but is good as far as it goes. Cricket, football, and route marching are kept up well, and a squad showed that they understood both the techniqne and the practical use of the rifle. There is no provision for swimming. A concert and one or two outings have been enjoyed.

Health.—Health has been good. There has been nothing more serious than a few chills, a case or two of tonsilitis, and a slight epidemic of influenza in the spring. The doctor holds a quarterly inspection. No special attention is given to the teeth.

Conduct.—In this respect the year has proceeded smoothly. A boy who gave trouble by fits of temper and objectionable language is said to be doing well in the army. A new boy made an attempt to run away, and another boy stole a scent bottle while in a position of trust. The mark system continues to work well. The boys' manners are as attractive as ever.

General remarks.—This school is languishing, and cannot much longer survive unless the Managers are prepared to adopt a change of policy in certain important respects.

Herts.

Visited.—11th April and 19th November, 1907.

Inmates.—Total number in school, 77; voluntary cases, 0; on licence 38; absconders, 0.

Staff.—Superintendent, Mr. I. A. Fish; matron, Mrs. Webber. There has been no change in the staff.

Premises.—There has been no change in the premises.

Standards with awards.—Standard VII, 8, good; Standard VI 14, good; Standard V, 19, good; Standard IV, 16, good; Standard III, 11, good; Standard II, 5 good; Standard I, 3, good.

The school was visited after three months' work, and as steady progress was shown the general award is good.

Class subjects.—Singing—old notation, very fair. Composition in V, VI and VII, good. Recitation, very fair. Geography and mental arithmetic, good generally. The development of intelligence is good.

Industrial training.—Drawing has made real advance. Certain of the boys have received instruction in wood-working; with a minimum of re-organisation and a slight addition to the tool equipment the boys might next year be presented for grant. The technical instruction in connection with tailoring requires to be systematised; and possibly some amount of technical instruction in connection with farm and garden work might be arranged.

Physical training, &c.—Free gymnastics are taken once a week by a visiting instructor, and in the interval by the teachers. There is a squad, too, for exercises on the parallel bars. As far as they go they are good, but the school is still behind most of its kind in point of physical training. Nine football matches have been played this season.

Health.—Since December the health has been good. There is an epileptic case still in the school, but it is desirable for other reasons to keep the boy unless he becomes worse. A lad scalded his leg badly in the copper, but is now doing well. Another boy had his wrist broken, being jammed by a cow against a paling. The question of diet has been gone into by the medical officer, and he is of opinion that the food is good and sufficient for growing boys.

Conduct.—There has been one case of absconding and two of attempting to abscond, one of stealing from another boy, one of indecent behaviour, and a few minor offences.

General remarks.—The licensing and after supervision of boys are a strong feature of this school, and enable it to deal successfully with a relatively large number of boys.

Liverpool Farm, Newton-le-Willows.

Visited.—12th February and 11th January, 1907.

Inmates.—Total number in school, 151; voluntary cases, 0; on licence, 53*; absconded, 1†.

Staff.—Superintendent and matron, Mr. and Mrs. Digweed. The head schoolmaster, Mr. E. T. French (ex p.t.), left 31st May, and was succeeded by Mr. F. N. Roff (t. and c.) 13th June, 1906. The assistant master, Mr. R. W. Sheldon (Art 68), left 31st March, 1906, and was replaced by Mr. W. Tucker (ex p.t.) 1st April, 1906. There has been a change of cook. The gardener, who has seen 43 years' service, has been placed in charge of the camp at Heswall.

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* Including 5 voluntary apprentices. † Absconded, 1904.

Premises.—The smith's shop has been enlarged and a new coal house built. The whole of the work was done by the boys. The kitchen and larder asrangements remain in an unsatisfactory state, which, it is hoped, may receive the early attention of the managers. The sickroom accommodation, too, is capable of improvement.

Standards with awards.—Standard VI, 18, good; Standard V, 39, very fair; Standard IV, 37, very fair; Standard III, 39, very fair; Standard II, 13, very fair; Standard I, 4, very fair; Preparatory, 1, newcomer. The general award is very fair. Work is uneven.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair. Mental arithmetic, good in VI; very fair generally. Geography, good. Recitation, very fair. A few object lessons have been given and some history taught.

Industrial training.—Drawing is only moderate; better methods and better discipline are required for its improvement. In manual instruction better finish should be aimed at. Taken as a whole the woodworking shop deserves commendation. The technical instruction in the tailors' shop might be extended. That in the shoemakers' shop is good. Creditable work is being done in the plumbers' shop, which has been enlarged. About two dozen boys receive good training on the farm and garden. There is a brass and reed band and also a string band. Both acquitted themselves well under the superintendent's direction. Disposal receives careful attention.

Physical training, &c.—A fine display of free and applied gymnastics was given. In addition to the more advanced work, the boys have a few minutes' drill daily. Cricket and football are played in their seasons, and provision is made for indoor recreation, though the library is not a good one.

Health.—A boy was discharged in July on account of phthisis, and died under operation later. Another was discharged as subject to fits. There are in the school two phthisical cases and one other weakly boy, whose discharges are likely to be applied for. The general health of the school has been good. Apart from the cases mentioned there has been no illness of note. The medical attention is careful and thorough.

Conduct.—Of four cases of theft three were committed by one boy, who appears since to have turned over a new leaf. There has been no attempt to abscond, and little or no serious misconduct, though the record includes an occasional case of insubordination, wilful damage, and pilfering, and a number of boys are addicted to smoking. The mark system might be used to greater advantage in connection with schoolroom offences.

General remarks.—The schoolroom should earn the award good next year. The general record for the past year reflects high credit upon all concerned.

Fylde Farm.

Visited.—8th and 14th February and 15th October, 1907.

Inmates.—Total number in school, 113; voluntary cases, 0; on licence, 12; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. C. S. Potter. The schoolmaster, Mr. Gibbs, left 22nd May, 1906, and was succeeded on 16th June by Mr. Elias Peddley (t. & c.). There have been three changes in the post of bootmaker.

Premises.—Heating apparatus for the baths has been improved. There have been no alterations in the premises.

Standards with awards.—Standard VII, 7, very fair; Standard VI, 17, very fair; Standard V, 24, good; Standard IV, 27, good; Standard III, 27, good; Standard II, 9, good; Preparatory, 2, new comers. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Mental arithmetic, good. Recitation, very fair. Geography, very fair. Composition, good. The development of intelligence is very fair.

Industrial training.—Drawing gives evidence of steady attention, and is likely to do well throughout in the near future. Manual instruction is in good hands. The special drawing is excellent, but the number of boys might with advantage be increased. The technical instruction in the tailoring shop is of the best, but nothing is being done in this direction in the shoemaking shop. 35 boys work at market gardening and 20 on the farm. The band continues to be efficient.

Physical training, &c.—Musical drill may well be dispensed with, and vigorous free gymnastics and gymnastic marching substituted, together with exercises over the horse. With muscle thus developed, as many as possible should be put through a course of applied gymnastics. Outside matches are played at cricket and football.

Health.—A boy suffering from pleurisy and heart disease was discharged in November, and subsequently died. There was one other case of pleurisy earlier in the year. The doctor successfully removed a polypus from one lad's ear. The chief trouble has been with a number of cases of itch and impetigo. At present there is no itch, and the impetigo is restricted to five boys.

Conduct.—There have been five cases of absconding during the twelve months. The most serious offences on record have been cases of stealing, indecency, gambling, bullying, and smoking. In the schoolroom disobedience and other small offences have been corrected. A good mark system should be established when feasible. A step in the right direction has been made in giving privileges to boys of good conduct, particularly in the use of the club-room and a half-day monthly with part of their reward money to spend.

General remarks.—The managers are to be congratulated on the advance made in the past year, and on the successful way in which the difficulties referred to in the previous report have been dealt with. With its fine buildings and healthy surroundings the school bids fair to take a place in the front rank.

Birkdale Farm.

Visited.—14th January and 28th February, 1907.

Inmates.—Total number in school, 200; voluntary cases, 1; on licence, 21; absconders, 0.

Staff.—Superintendent, Captain Daniel H. Shee. Assistant Superintendent, Mr. F. Turner, left 30th November, 1906, succeeded by Mr. Arthur Henry. Mr. Edward Collingwood succeeded Mr. Jos. Verley as 2nd assistant teacher on 1st December, 1906. And Mr. Wm. Salthouse succeeded Mr. R. Rimmer, as joiner and manual instructor, on 28th May, 1906. There have also been changes of laundress, farm bailiff, and assistant farmer.

Premises.—The improvements effected during the year include the rebuilding of several sheds for the storing of tools, lime, wood, &c., the supply of a really good movable partition in the school-room, and the issue of serge Norfolk suits to the boys.

Standards with awards.—Standard VI, 25, good; Standard V, 39, good; Standard IV, 51, good, ; Standard III, 39, good; Standard II, 34, very fair; Standard I, 12, very fair. The general award is good.

Class subjects.—Singing—staff notation, good. Composition in V and VI, good. Recitation, good generally. Mental arithmetic, good in VI and IV, very fair in V and III. Geography, good in upper standards, fair in III, very fair in II. History readers have been in use, but object lessons appear to have been in abeyance lately.

Industrial training.—Drawing would gain by better pace and cleaner finish. A special feature should be made of solid geometry in the senior standards. Manual instruction continues to be thoroughly well given; the work of the seniors merits special praise. Cabinet-making, wood-turning, farming, and market-gardening have been developed into regular and profitable trades. The range of greenhouses, and the way they are kept, are unsurpassed in any school. Technical instruction is a strong feature in the bakery, and, it is anticipated, will soon be made equally strong in the tailoring and shoemaking shops. In a word, the Birkdale Farm School, on the industrial side, bids fair to soon develop into a regularly organised technical school.

Physical training, &c.—Free exercises have received some attention. It would be as well to appoint a visiting gymnastic instructor and provide a good vaulting horse, as the one now in use is hardly suitable. Of 19 matches at football against outside teams 11 were won by the school.

Health.—The general health has been good during the year. The most serious case has been that of a boy with hip-joint disease, but he is now making progress in a convalescent home. A case of pneumonia and one of pleurisy made good recoveries, also one of chicken-pox and one of rheumatism in the knee. One or two boys suffer from bad eyes, and there have been a few cases of skin affections, and a couple of accidents, one boy still having his arm in a sling.

Conduct.—Two boys absconded, but were soon brought back; another made an unsuccessful attempt. Some cases of pilfering, smoking, and ordinary boyish offences, but generally there has been very little of anything like serious misconduct.

General remarks.—The steady progress of this school is reflected in the remarkable improvement in the results effected in recent years. In this regard the school has shown what can be done by taking infinite pains. One can only hope that the superintendent, who has set such an excellent example, will long be spared to the work for which he has done so much. The appointment of a special reporting agent is recommended to aid in after supervision.

Monmouth.

Visited.—10th July, 4th July and 2nd October, 1907.

Inmates.—Total number in school, 39; voluntary cases, 1; on licence, 0; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. Pobgee. The schoolmaster, Mr. Merric, died 25th September, 1906, and was succeeded by Miss L. A. Forgan, 28th November, 1906. There have been changes in the post of gardener and farm assistant.

Premises.—There has been no change in the premises. The dormitories have been colour washed. The clothing is in a poor condition and the stock of blankets and towels very low. A drill should be commenced for clearing the dormitories in case of fire. The roof of the lavatory shed should be repaired.

Standards with awards.—Standard V, 9, very fair; Standard IV, 8, very fair; Standard III, 10, fair; Standard II, 8, fair; Preparatory, 1, deficient. The general award is very fair.

Class subjects.—Singing—by ear. Composition in IV and V, very fair Recitation, very fair. Mental arithmetic, very fair in IV and V, very fair below. Geography, good. The development of intelligence is very fair.

Industrial training.—The new schoolmistress has taken a good grip of the drawing, and there is promise of the subject becoming really effective. The staple industrial work is about the farm and garden. Outside of these it would be difficult to find a school whose industrial activities are so restricted. The time has arrived when the whole question of the industrial training should be reviewed with a view to reorganisation. Small as the school is, some instruction in the use of carpenters' tools should at least be given.

Physical training, &c.—For the past three months gymnastic instruction has been given voluntarily. The work is very fair and promises well. Football is played. Swimming, so far, has been impossible in the open air bath. Concerts and entertainments have been got up for the boys.

Health.—The health has been good; only slight cases of indisposition are mentioned. The superintendent has been ailing

for some months, and Mr. Merrick, the schoolmaster, died of meningitis in October.

Conduct.—Three boys absconded in June and there has been some stealing, smoking, fighting, and impudence. The number of offences is not great and the boys seem cheerful and well disposed.

General remarks.—Though only very fair the work in the schoolroom left the impression that every boy was getting his measure of attention. It seems doubtful whether the committee are in as close touch with the details of management as is desirable.

Northampton.

Visited.—16th July, 5th April and 12th November, 1907.

Inmates.—Total number in school, 86; voluntary cases, 1; on licence, 7; absconders, 1.*

Staff.—Superintendent and matron, Mr. and Mrs. W. McColl. The master in training, Mr. Garratt, left 12th June, 1907.

Premises.—There had been no change in the premises up to date of annual inspection.

Standards with awards.—Standard VI, 21, very fair; Standard V, 17, very fair; Standard IV, 14, good; Standard III, 12, fair; Standard II, 12, poor. The general award is fair.

Class subjects.—Singing, sol-fa, good. Composition, very fair in V, good in VI. Recitation, very fair generally, poor in III. Mental arithmetic, poor. Geography, good. History and elementary science had been taken by the seniors, and the junior and intermediate standards had had object lessons on domestic animals. The development of intelligence is very fair.

Industrial training.—In drawing the examination test was better than the work done in the books, which was somewhat rough. Technical instruction is now to form a regular part of the work of the tailors' and shoemakers' shops. It would also be a most excellent adjunct to the work on the farm and garden. It is hoped that before very long this school may be brought into line with the majority of schools by the establishment of a regular wood-working shop.

Physical training, &c.—The free gymnastics are fairly good, though not up to the level of many schools. The want of apparatus is felt. Football and cricket are regularly played.

Health.—Since January the school has been upset by an outbreak of ring-worm, 20 cases in all. The number is now much reduced, but the cases are obstinate. The treatment seems to have been very severe, and there are three ugly looking heads. A boy whose head had also been treated was in bed with sores in his mouth. It is not usual to see ring-worm produce such results, and further medical opinion would be advisable. The managers have also undertaken the care of several difficult cases, but it was found

* Absconded while on licence.

necessary to obtain the discharge of an epileptic, and a blind boy was licensed to a Blind School at Broekbank.

Conduct.—There was one absconder during the year; this was his third offence. Other offences have been of laziness, dirtiness, cruelty to animals, pilfering, and stealing. These are by no means numerous, and the general tone appears to be good.

General remarks.—The schoolroom work is disappointing, though some allowance must be made for the disturbance caused by the outbreak of ring-worm and the schoolmaster being single-handed for a month. The boys are pleasant in manner, cheerful, and responsive.

North Eastern.

Visited.—26th April, 16th March, and 27th August, 1907.

Inmates.—Total number in school, 210; voluntary cases, 0; on licence, 4; absconders, 2.

Staff.—Mr. and Mrs Wallace, the superintendent and matron, left 31st August, 1906, and were succeeded by Mr. and Mrs. W. H. Banister. Mr. E. D. Lowes (c.) succeeded Mr. Banister as deputy superintendent and head master, September, 1906. Mr. T. F. McGovern was discharged 12th October, 1906, and was succeeded by Mr. M McDonnell. There have been changes in the posts of clerk, bandmaster, drill-instructor, and cook.

Premises.—There has been no change in the premises. A new engine has been installed at the brickyard. The boys will shortly be dressed in a new uniform. The socks are changed more frequently and the brushing of the clothes better regulated.

Standards with awards.—Standard VI, 33, good; Standard V, 44, good; Standard IV, 49, good; Standard III, 38, very fair; Standard II, 34, very fair; Standard I, 14, new boys with three exceptions. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V, very fair; in VI, good. Recitation, very fair. Mental arithmetic, good generally, poor in III. Geography, very fair in III and IV, good in other standards. The development of intelligence is fairly good.

Industrial training.—Drawing is generally fairly good, and with adequate attention to finish would soon become first-rate. Manual instruction gives good promise. The general wood-working trade class (which includes wheelwrights' work) turns out some very first class work indeed. The smiths' class is excellent. Technical instruction in the tailoring and shoemaking shops is receiving earnest attention, and would be still further advanced by well-arranged schemes of lessons. Milking and ploughing are included in the acquirements of the farm boys. The two acres of kitchen garden are in perfect order. Ten boys are engaged in brick and tile making. It is impossible not to realise that industrial training is making rapid strides in this school Draft schemes of technical instruction have already been arranged in connection with most of the industries, and are likely

to be put into good detailed order immediately. The one department which gives an unsatisfactory impression is that of the painters'. Much pains have been taken to improve the band. The homes of all boys are being visited before they are allowed to return on leaving.

Physical training, &c.—This is now good. Two-thirds of the school gave a smart exhibition of free gymnastics. The teachers, who take the drill under supervision of the visiting instructor, deserve much credit. The exercises over the horse were better than those on the horizontal bar, which showed some weakness of development. Cricket and football are played in their seasons. A commencement has been made with rifle shooting. A miniature service rifle is to be supplied. The boys are now regularly weighed and measured.

Health.—There was a death in May from tuberculosis. A serious case of rheumatic fever made a good recovery. One lad tried twice to take his life, and the second time by drinking marking-ink made himself dangerously ill. He recovered and was discharged from the school. Two cases of phthisis are reported, and there is a boy suffering from tubercular abscesses. There have been some skin troubles, a case of ophthalmia, and one of conjunctivitis. There is a boy now in school whose conduct gives rise to uneasiness and he is continually watched.

Conduct.—Until the middle of June there was a considerable amount of absconding; since that time the boys seem to have settled down. There has been some bullying, stealing food, and fighting. Smoking caused some trouble early in the year. The mark system is being worked with increased energy. As this gets root in the school it is hoped that the number of punishments will decline.

General remarks.—This important school was never in a more promising condition than now. Amongst many improvements effected of late years, one of the most noticeable is that in the physical training, as regards which the school now compares favourably with any of its class. In the important matters, too, of disposal and after supervision the outlook is, to say the least, more hopeful.

Kerrison.

Visited.—17th May, 18th May and 23rd July, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0; on licence, 11; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. F. W. Gill. The only change in the staff has been in the post of bandmaster, Mr. A. H. Tupper succeeding Mr. Joyce.

Premises.—An adjoining farm of 50 acres has recently been hired; two pedigree Suffolk mares have been added to the stock. Regular fire drill has been instituted, and the new range of workshops, &c. has been well utilised during the year. It needs, however, top ventilation, and a great want of the school is improved bathing accommodation.

Standards with awards.—Standard VI, 17, good; Standard V, 21, good; Standard IV, 30, good; Standard III, 25, good; Preparatory, 7, mostly new comers. The general award is good.

Class subjects.—Singing, good. Composition, in VI and V, fairly good. Recitation, good in VI and V, very fair in other classes. Mental arithmetic, good generally, but needs attention in III. Geography, good. History readers have been in use in the three upper classes. Useful object and general knowledge lessons have been given. Well-stocked museum cupboards have helped in this connection.

Industrial training.—Drawing is steadily improving in detail. The boys have generally a clear conception of their work, and special attention might now be paid to cleanness and finish. The woodwork instruction is sound. The higher grant is recommended. Technical instruction in tailoring and shoemaking has received steady attention, and is well worthy of encouragement. In the farm work there are a larger number of milkers and of boys who can plough than are to be found in most schools. An additional farm of 50 acres has been rented. The boys' garden plots (50) are in the usual first-rate order. Special mention must be made of the care of the horses—a most valuable experience for the boys who have charge of them.

Physical training, &c.—Military drill with rifles is still a feature of the school, as is also Morris tube shooting at an open-air range. Applied gymnastics have been rather in abeyance lately, but the free and dumb-bell exercises are being kept up, and with the aid of a visiting master should soon be as good as ever. At football the school has had a very successful season, only losing one match out of a dozen played.

Health.—The boys looked remarkably well when inspected. The most anxious case had been one of appendicitis, which, however, after two operations, made a good recovery, as did also one of rheumatic fever. Other cases treated included one of quinsey, several of mild influenza, a few of sore throat, one of alopœcia, and two of sore eyes. A transfer from another school, who seemed a hopeless case at the time, has made wonderful progress.

Conduct.—The general conduct has been very creditable to all concerned. One restless boy, with a natural inclination to run away, appears now to have quite settled down. There is only a short list to show of quite ordinary offences. Nothing could well be better than the appearance and demeanour of these fine lads.

General remarks.—After 50 years of successful work this school can point to as honourable a record as any under inspection, and promises to long continue as an example of the best type of English Reformatory Schools.

Redhill.

Visited.—5th and 6th December, 20th, 21st and 22nd November, 24th April, 1907.

Inmates.—Total number in school, 292 ; voluntary cases, 0 ; on licence, 0 ; absconders, 0.

Staff.—Warden, Rev. Canon Marshall G. Vine. Secretary, John Trevarthen, Esq. There have been changes of storekeeper, nurse, labourmaster, gardener and laundress. Mr. John Brooker commenced as master in training in April, 1907.

Premises.—All the houses have now been fitted with spray (hot and cold) baths and lavatories, a decided improvement in every way. The carpenters' and smiths' shops have been enlarged and refitted, a new timber shed built, and other improvements have been effected in various parts of the premises, including some useful ones in the infirmary.

Standards with awards.—Standard Special class, 37, good ; Standard VI, 38, very fair ; Standard V, 58, good ; Standard IV, 68, good ; Standard III, 48, good ; Standard II, 25, good ; Standard I, 8, and Preparatory, 5, newcomers. The general award is good, Gurney's house being the best.

Class subjects.—Singing, good in one or two houses, but needing attention in others. Composition, good. Grammar, good. Recitation, fairly good. Mental arithmetic, very fair. Geography, good. History, good. The warden's special class, besides acquitting themselves well in the above subjects, showed capital progress in advanced arithmetic, algebra, and graphs.

Industrial training.—The drawing in the various houses shows solid advance, but there is still room for improvement, particularly in respect of clearness and finish in the mechanical work. In the warden's class the range of the drawing has been extended. Some really good work was done on the day of inspection in geometry, shading from the cast, original sketches, map drawing and designing. The one real weakness was in the execution of the geometry, which ought to receive better attention in the " Houses " before the boys join the warden's class. Manual instruction, carpentry and joinery, and metal working are all good. No school can produce a more workmanlike lot of boys than those in the metal-working shop. Technical instruction is receiving attention in the tailoring and shoemaking shops, but would gain by the use of well-defined schemes of lessons. In all the other industrial departments it is anticipated that formal technical instruction will soon be introduced ; farming and gardening in particular offer a very fine field in this direction. Not the least gratifying feature is the useful part played by the well-trained brass and reed band.

Physical training, &c.—A special word of commendation is due in respect of this department of the school. The drill, the free and the applied gymnastics continue to be very good indeed and beneficial in every way. The school teams have, as usual, been very successful at cricket and football and are the holders of more than one cup. The ambulance class has again been very successful.

Health.—The general health has been good and there were no sick at the time of the inspection. The cases recorded included one or two of rheumatic fever, one of chicken-pox, a few tubercular cases, and some more or less minor accidents, all making

good recoveries, except one boy with tubercular hip disease, who had to be discharged. An expert examination of the boys' teeth would have a good effect.

Conduct.—The year has again been a quiet one as regards conduct. There has been very little absconding or attempt at it, and serious offences generally have been very rare, while the ordinary misdemeanours have been rather fewer than usual.

General remarks.—The improvements effected in the general equipment and indications of advance in the industrial training are most encouraging symptoms. A like improvement in the quality of the literary instruction in the various houses would enable still greater things being done in the already admirable advanced class.

Saltley.

Visited.—8th and 19th July, and 9th January, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0: on licence, 30; absconders, 0.

Staff.—Superintendent, Mr. Stephen Arnold; matron, Mrs. Clara Alice Fish. The assistant schoolmaster, Mr. E. B. Jago, left on 3rd April, 1907, and was succeded on 26th April by Mr. Alfred L. Wright. There have also been changes in the posts of gardener and cook.

Premises.—There have been no changes in the premises.

Standards with awards.—Standard VI, 18, good; Standard V, 21, good; Standard IV, 25, good; Standard III, 25, very fair; Standard II, 11, very fair. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI good. Recitation, fairly good. Mental arithmetic, good in VI, very fair in V and IV, poor below. Geography, good in the upper standards, very fair in the lower. Object lessons had been taken by the lower standards and agricultural lessons by the upper. The development of intelligence is on good lines.

Industrial training.—In drawing few schools surpass this in the general work of the year, and no school has a better show of special drawings by the abler boys. Technical instruction has received considerable attention in the tailoring and shoemaking shops, the technical drawings in the latter shop reach a really high level of excellence. The horticultural lessons given in the schoolroom are a valuable adjunct to the theoretical side of the farm and garden work; but in the actual work on the farm the boys might easily be trained to show a more ready intelligence. The band is a good one. The records of the old boys has always been carefully kept, and the endeavours to influence parents for the good of the boys is being kept in view.

Physical training, &c.—The free gymnastics are good, and a large squad take part in good exercises on the parallel bars and over the horse. The maze running continues a feature of these exercises. At the Small Heath Baths, 42 free passes and

10 certificates were awarded for swimming. Several prizes were won at the Home Office Schools Midland District Sports. Rifle shooting is practised, and an air gun section has been started.

Health.—There has been little sickness among the boys. The only cases noted are single ones of sore throat and rheumatism. Among the staff the superintendent has been ailing, but is now better, and two other officers have had bronchitis. The doctor visits regularly every week. It would be a great advantage to these boys if they could have their teeth regularly inspected by a dentist.

Conduct.—The conduct has been good. A few boys have been punished for disobedience, impertinence, &c., and one boy for plotting to abscond and take others with him. The mark system is regularly worked.

General remarks.—The school did well in all departments. The managers and staff have to be congratulated on the success that attends their well-directed efforts.

Warwickshire.

Visited.—10th May and 1st March, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0; on licence, 8; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. E. Pengelly. Mr. A. D. Heys (ex. p.t.) began his duties as master in training, May, 1906.

Premises.—No improvements have been made in the buildings this year, but alterations are to be commenced shortly in the kitchen.

Standards with awards.—Standard VI, 18, good; Standard V, 15, good; Standard IV, 26, good; Standard III, 37, very fair; Standard II, 4 (3 new boys and 1 mentally defective). The general award is good.

Class subjects.—Singing—old notation, good. Composition, in V and VI, very fair. Recitation, very fair. Geography, very fair. Mental arithmetic, very fair in III, good in other standards. The development of intelligence is very fair. Composition should be commenced in the lower standards. Recitation is improving, and the same may be said of the reading.

Industrial training.—Drawing shows genuine progress and is likely to go farther. The first year's experience of manual instruction is most gratifying. This department will soon form a fine feeder for the carpentry and joinery department. Technical instruction is worthy of encouragement in the tailors' shop, and would be much assisted by a well-devised scheme of lessons. The drawings in this shop are already very well done. The shoe-mending instructor might also with advantage arrange a scheme of lessons. In connection with the farm work it is gratifying to know that the more expert operations, such as ploughing and even thatching, are receiving attention, and may be expected to

increase as time goes on. The brass band is a good one, but the reeds have now been given up. An endeavour is being made to place the boys in good situations. At present the inclination is to emigrate or go to farm work.

Physical training, &c.—Free gymnastics and company drill were taken by the whole school, and there was a fine display of dumb-bells, Indian clubs, and applied work in the gymnasium. It should be noted that the apparatus in the gymnasium has been added to. The school carried off the Inspector's Football Cup in the Midland District, and they are also the holders of the "Ansell" Challenge Shield for swimming. An indoor rifle range has been started.

Health.—The only serious case for the year was one of appendicitis, which made a good recovery. There are two tubercular cases in the school. Other ailments which have been treated have been rheumatism, debility, ophthalmia, scabies, and four cases of ring-worm. One boy was in hospital who had met with an accident in the laundry. There seems to be a chance that the school may go into camp this year—an excellent arrangement if it can be managed.

Conduct.—The chief entries in the punishment book have been for absconding and stealing money, apples, &c. from other boys' lockers.

General remarks.—The practice of the Committee of interviewing every boy before leaving is excellent. It is from this moment onwards that the real value of the school is to be tested. Free communication seems to be maintained with the boys after they have left, and a real personal interest taken in their welfare.

Wilts.

Visited.—3rd May and 29th July, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0; on licence, 24; absconders, 0.

Staff.—Superintendent, Mr. W. H. Verity (t. & c.); matron, Mrs. Verity. Mr. J. C. Bright (c.), assistant teacher, left 31st May, 1906, and was succeeded by Mr. W. J. Crichton (ex p.t.), 5th June, 1906. A carpenter was appointed 5th June, 1906.

Premises.—The old recreation-room has been fitted up as a manual instruction shop. The dormitory floors have been stained and polished, and the ventilation has been improved. The premises look antiquated here and there according to modern ideas, but cleanliness and order prevail throughout.

Standards with awards.—Standard VI, 25, good; Standard V, 22, good; Standard IV, 31, good; Standard III, 14, good; Preparatory, 9, new-comers. The general award is good. Standard III consists of new boys, or of boys who were in the Preparatory class last year.

Class subjects.—Singing is still exceptionally good. The voices are admirably trained and the part-singing is specially

creditable. Composition, good. Mental arithmetic, good. Geography, good all through. Recitation, good. History and science have been well taught to all. The boys answer brightly, and their intelligence is strikingly well developed.

Industrial training.—Drawing is generally fairly good, greater neatness and finish would be an advantage. A good commencement has been made in manual instruction, for which the higher grant is recommended. It is hoped that technical instruction may now be given in connection with the tailoring and shoemaking. The farm boys would also benefit by instruction in the theory of agriculture; while it is anticipated that horticultural lessons will be made a school-room subject. The band rendered a good account of itself, especially in sight-reading.

Physical training, &c.—Military drill and free gymnastics are practised regularly, and are good as far as they go. But to put a real finish on this branch of the training a course of applied gymnastics is essential, and these are just the boys to profit by it. It is gratifying, therefore, to see that the list of subscriptions towards the proposed gymnasium is slowly mounting up. Healthy outdoor games receive every encouragement, and indoor recreation is well provided for.

Health.—An outbreak of influenza occurred in March, but the 20 boys affected soon shook it off without any apparent ill-effects. A few minor ailments are noted, but there has been nothing of a serious nature. It would, indeed, be difficult to find a healthier looking lot of boys in the country. The whiteness of the teeth must be specially remarked on; and mention must be made of the excellent instruction in ambulance work given by the head schoolmaster.

Conduct.—Discipline is well maintained, the tone is good throughout, and the boys seem delightfully cheery and happy. Two, who absconded together for no apparent reason, have speedily settled down. One case of stealing from an officer, two of stealing from boys, one of deceit, and one of misconduct on licence are practically the only offences to call for particular notice. Considering the large number of new boys admitted during the year, this record is eminently satisfactory.

General remarks.—Prominent as ever are the many fine features which have made the school's reputation in the past. This year the opening of the manual instruction shop is a step in the direction of skilled trade instruction, from which much may be expected in the future.

Stoke Farm.

Visited.—5th and 6th July, and 8th January, 1907.

Inmates.—Total number in school, 81; voluntary case, 1; on licence, 26; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. James Campbell. There have been changes in the posts of assistant matron, nurse, and gardener.

Premises.—A new boiler has been put in and the heating pipes repaired. The windows of the dormitories have now been made to open further. New fire-extinguishing appliances and hose have been bought. The dormitories were beautifully clean.

Standards with awards.—Standard ex VI, 1, good; Standard V, 19, good; Standard IV, 23, good; Standard III, 26, very fair; Standard II, 10, very fair; Standard I, 2, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, very fair in the upper standards. Mental arithmetic, poor in III and II; good in the upper standards. Geography, good. History readers had been in use. The development of intelligence is good. An admirable feature is the special class for boys wishing to join the army.

Industrial training.—Drawing has made striking advance, and is rapidly becoming first class. In manual instruction special attention should be paid to correct methods of handling the tools and accuracy in elementary items as they recur in later work; the application of the work to commercial purposes merits commendation. Technical instruction has been genuinely grappled with in the tailoring and shoemaking shops, and with really good effect. The enterprise in the fruit farm and gardens is a notable thing, from which the boys get their full share of benefit. The boys' own garden plots show up better this year than ever before. Altogether the school is to be congratulated upon its rapidly advancing industrial side.

Physical training, &c.—The physical training consists in free gymnastics and military drill. It is good so far as it goes, but better results would be obtained for the physique of the boys if some of the time were taken from the military drill and devoted to improving the free gymnastics. A gymnasium is a great want here. Some 50 per cent. of the boys can swim. At the Home Office Schools Sports three prizes were won for running. Football has been played and concerts given.

Health.—The only serious case in the year was one of pleurisy, which made a good recovery. Another boy suffered from rheumatism, and there have been some few treated for skin affections. A sprained ankle and burnt eyelids were the only accidents, and no ill results came of them. The doctor visits nearly every week.

Conduct.—Two boys tried to abscond a few weeks after arrival, but beyond this there have only been very trifling offences. There is a mark system, which works well and reduces the necessity for punishment to a minimum. No visitor could fail to be impressed with the excellent influence at work among the boys.

General remarks.—The managers have done much of late to make this an efficient school. But much still remains to be done to make the buildings worthy of the admirable work being carried on.

Calder Farm.

Visited.—10th and 11th October and 23rd January, 1907.

Inmates.—Total number in school, 111; voluntary cases, 0; on licence, 8; absconders, 0.

Staff.—Superintendent, Mr. J. Hepple. Matron, Miss Mary Hepple. There has been no change in the staff.

Premises.—A new entrance has been made to the tailors' and shoemakers' shops. The shops have been enlarged by the removal of a partition. A sole-cutting press and rollers have been introduced in the shoe shop. The managers are about to sign a long lease for the premises preliminary to building operations.

Standards with awards.—Standard VI, 15, good; Standard V, 20, good; Standard IV, 22, good; Standard III, 25, very fair; Standard II, 22, good; Standard I, 6, good; Preparatory, 1. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI fairly good. Recitation, very fair in III and IV, good in other standards. Mental arithmetic, good. Geography, good. History readers are in use. The development of intelligence is good.

Industrial training.—The work in the drawing books is rough, while the results of the examination test were not up to the general average of reformatory schools. Otherwise the industrial work of this school never gave a better impression. The carpentry and saddlery shops are both workmanlike places. The kitchen-gardens were in first-rate order having regard to the time of the year. In each of these departments, as well as in tailoring and shoemaking, a number of boys showed considerable knowledge of the theory of their work. The time is ripe for the theoretical instruction of each trade to be systematised by the adoption of regular schemes of lessons. It may also be possible to do something in a similar way for the farm boys. It is satisfactory to know that regularly organised manual instruction in woodwork is likely to be commenced soon. The brass band is to be given up and the bugle band augmented. Arrangements have been made for the best players to continue with a local band.

Physical training, &c.—The military drill and exercises with rifles are good. A promising commencement has been made with parallel bars and the horse. Cricket and football matches have been played every Saturday against outside teams.

Health.—The general health has been good with the exception of some influenza in January and February. There is an epileptic in the school, who is improving. Other ailments which have been treated have been rheumatism, boils, and sore throat. Two accidents resulting in a scald of foot and fractured arm made good recoveries. The boys again had the advantage of 16 days under canvas in June. The improvement is satisfactory, and is no doubt attributable to improved ventilation in the living-rooms and general care of the superintendent.

Conduct.—A boy absconded, but was caught at York after 24 hours' absence, and two others attempted to abscond. A number

of boys have been punished for smoking and pilfering, and there are a few entries for stealing and lying. The remaining entries, though numerous, are for minor offences.

General remarks.—The buildings, which have for so long been considered unsatisfactory, are shortly to be rebuilt. The question of disposal is receiving increased attention, and the services of a special agency enlisted. A word of praise must be given to the superintendent and his staff for another good year's work.

Castle Howard.

Visited.—18th June, 25th September, 3rd January, 10th January, and 18th February, 1907.

Inmates.—Total number in school, 99; voluntary cases, 0; on licence, 9; absconders, 0.

Staff.—Superintendent, Lieut-Col. C. D. Johnstone. The schoolmaster, Mr. W. A. Evans, left 8th October, 1906, and was succeeded by Mr. John Thomas Laxton (t. & c.), 28th October. There have been changes in the posts of master tailor, master shoemaker, and assistant labour master. The domestic arrangements have been much improved by the appointment of a qualified nurse as matron.

Premises.—Improvements have been made in the schoolmaster's room, general messroom, and officers' quarters, in the lighting and ventilation of the dormitories and in the hospital. The drainage is being completely re-laid. The dormitories need painting throughout, and the boys' clothing, already improved, requires further additions, *e.g.*, a light pair of boots and cloth trousers for Sundays. The improvement of the lavatory and bathing accommodation is also receiving attention.

Standards with awards.—Standard VI, 25, good; Standard V, 23, very fair; Standard IV, 18, good; Standard III, 21, good; Standard II, 10, poor. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI, very fair. Recitation, very fair in V and VI, fair in III and IV, not taught in II. Mental arithmetic, fair in II and V, good in other standards. Geography, fair in V, good in other standards, not taught in II. The development of intelligence is very fair.

Industrial training.—Drawing is now well in hand, and is likely to make rapid improvement. Scale drawing and geometry would repay special attention. It is hoped that manual instruction may soon be started. Tailoring and shoemaking are on an improved footing. The boys in both shops show considerable intelligence about the practical details of their work, and would greatly benefit from the use of carefully arranged schemes of theoretical instruction. The market garden area has been extended. All the gardens are in good order. The boys receive excellent practical experience, which might be supplemented by theoretical instruction. Farming operations are hampered by

insufficient horse-labour and implements. The brass band is good and well trained, but would be the better for a few reed instruments.

Physical training, &c.—Here there has been progress. A large squad went through their free gymnastics and exercise over the horse in creditable style. Out of 30 football matches 26 have been won. Cricket is played, but no matches arranged with outside teams.

Health.—From July to November there was little sickness, save a few skin troubles, a case of favus (which is still under treatment), one of rheumatism, and a leg broken at play. In October there was a case of quinsey and three sore throats, and in November a case of diphtheria. Between that time and January there were 12 cases of diphtheria and several sore throats. Two trained nurses attended the cases and all recovered.

Conduct.—There were eight cases of absconding up to January, but since then the boys have settled down. There have been some cases of stealing during the twelvemonth, and there has been some trouble with smoking, but generally the tone of the school shows steady advance.

General remarks.—The managers are to be congratulated on the result of the year's work. There is still room for improvement, especially in the schoolroom, but the general outlook was never more promising and encouraging than at present.

St. William's School, Market Weighton.

Visited.—8th and 9th October, 26th September, and 4th January, 1907.

Inmates.—Total number in school, 193; voluntary cases, 0; on licence, 19; absconders, 0.

Staff.—Superintendent, Rev. C. F. Ottway. The chaplain, the Rev. T. Nunan, left 30th September, 1907, and was succeeded by the Rev. J. Hurley. The head schoolmaster, Mr. S. T. Hassam (t. and c.), left 30th September, 1906, and was succeeded, 1st November, by Mr. James McGinity (t. and c.). Mr. P. Cahill left 3rd November, 1906, and was succeeded by Mr. James Verley. There have been changes in the posts of assistant yardmaster, baker, laundress, storekeeper, cook, shepherd, fieldmaster, and compositor.

Premises.—Heating apparatus has been installed for warming the chapel, classrooms and lavatory. The supply of water has been improved by the building of a weir, larger tanks for storage, and the working of the force pump by machinery instead of by hand. The infirmary has been decorated and refurnished, and a lavatory and convalescent room added. The offices have been brought up to date. Fire drill is practised. A manual engine and hose have been supplied. Hand pumps and buckets have been supplied to all the dormitories. The boys' uniform has been abolished, and cord knickers and tweed coats substituted.

Standards with awards.—Standard VI, 27, very fair; Standard V, 27, very fair; Standard IV, 41, good; Standard III, 47, fair; Standard II, 25, good; Standard I, 24, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition in V and VI, fairly good. Recitation, very fair generally; there is gradual improvement, but it still requires much attention. Mental arithmetic, good in II, very fair in other Standards. Geography, good in II, very fair otherwise. History and horticultural readers have been used. The development of intelligence is very fair.

Industrial training.—The schoolroom drawing is not up to the mark. There are clear indications that the schoolroom staff know how to put this matter right. In the manual instruction practical bench-work, precision and finish are required. The special drawing (done under the schoolroom staff) is good. The trade shops never gave so good an impression as now, a fact upon which the rector and staff are to be congratulated. The way is now clear for an organised system of technical instruction in each shop, and also in connection with the work on the farm, especially as regards the senior boys. The band is greatly improved, and may now be considered among the best in Home Office schools.

Physical training, &c.—The whole school take military drill and about 50 boys free and applied gymnastics. In each case the work was creditable. The scheme for physical development is in time to be revised. The free gymnastics should then receive more attention. The football ground is a fine feature. Five games can be playing at once. The boys have made good use of their opportunities. Cricket is not much played.

Health.—There have been three deaths during the year—one from pneumonia following influenza in January, another from pericarditis in September after a long illness, and the third from rheumatic fever in July. There was a severe outbreak of influenza in January, which was not got rid of until the middle of April, over half the school and all the staff being affected. A boy was discharged for caries of the spine and is now in hospital at Middlesbrough. There have also been cases of synovitis, eye trouble, impetigo (3), and three boys with tubercular glands were successfully operated upon. One boy broke his arm unloading a cart. The doctor visits regularly once a week and when required. Personal cleanliness is receiving greater attention. The care and preservation of the teeth is important, and if opportunity offered might well be placed under the supervision of a dentist.

Conduct.—One boy absconded, but was away for only 24 hours, and a new boy made an attempt to run away. The chief entry is for smoking, and there have also been several cases of pilfering and gambling and two of attempted indecency. The remaining entries are for fighting, insolence, and usual minor offences. A mark system has been started with money rewards.

General remarks.—The year has been one of well-directed energy, and the rector and his staff are to be congratulated on what they have achieved. Much has been done and much remains to do, but already the effect is noticeable in the improved appearance and behaviour of the boys.

Wellington Farm.

Visited.—19th and 25th March and 23rd October, 1907.

Inmates.—Total number in school, 109; voluntary cases, 0; on licence, 5; absconders, 1.

Staff.—Superintendent and matron, Mr. and Mrs. John Craster. Miss Breckenridge succeeded Miss Davies as matron in training, 16th August, 1906.

Premises.—There is no change to record as to the buildings.

Standards with awards.—Standard VI, 33, good; Standard V, 25, good; Stardard IV, 23, very fair; Standard III, 18, very fair: Standard II, 8, very fair; Preparatory, 2, newcomers. The general award is good.

Class subjects.—Singing—sol-far, good. The boys should modulate their voices more. Composition in V very fair, in VI. good. Recitation, good. Geography, good. History, good. Laws of health, good. The developments of intelligence is good.

Industrial training.—Steady attention has been given to drawing, and better finish would still further improve it. The tailoring and shoemaking shops are among the most workmanlike to be found anywhere. Technical instruction in these shops is receiving considerable attention, and would be still further advanced by the use of carefully drawn schemes of lessons. Fifteen boys are engaged in general farm and garden work. The boys had the advantage of a course of 14 lectures from a lecturer of the East of Scotland College of Agriculture. Too much attention cannot be given to the important matters of disposal and after supervision.

Physical training, &c.—Parallel bars and vaulting horses have recently been purchased and some simple exercises were performed on each. The whole school take free gymnastics, and there was a squad with dumb-bells. Football and cricket are played in their respective seasons, and running is also practised. A debating society was formed during the winter; this gave an impetus to the school library and reading club. Ambulance classes, concerts and lantern lectures have also been held in the winter months.

Health.—The health has been good. There was a case of pleurisy in April, 1906, and rheumatism in January, 1907. The most troublesome case was one of sore throat of congenital origin, which was eventually transferred to Kibble. In January a boy went out of his mind and was sent to the asylum. The clothing has been improved. Heavier flannels are worn in winter. Jerseys are being introduced and clogs for farm boys.

Conduct.—The discipline has given but little trouble. One boy absconded, two others plotted to abscond. Besides these troubles there have been a few petty thefts and cases of disorder.

General remarks.—The majority of the boys are in the upper Standards, and it is proposed to submit a special scheme of work for ex-VI lads. The lower part of the school needs very special attention. Now that some gymnastic apparatus has been supplied it may be hoped that the physical training will be developed on satisfactory lines.

Rossie.

Visited.—2nd May and 19th October, 1907.

Inmates.—Total number in school, 74; voluntary cases, 0; on licence, 11; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. James Carson. There have been changes of gardener and pipe-major, and domestic.

Premises.—There have been no structural alterations in the buildings, which have been painted inside and out, mainly by the boys. A new play-shed is about to be erected. There is a general air of cleanliness and good order throughout the whole place.

Standards with awards.—Standard VI, 7, very fair; Standard V, 15, good; Standard IV, 15, good; Standard III, 20, fairly good; Standard II, 17, good. The general award is good. Attention requires to be paid to clearness in reading and kindred subjects.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, very fair in VI, good elsewhere (in the majority of standards above the average). Recitation, very fair in II, fairly good in III and V, good in IV and VI. Geography, very fair in III and IV, good elsewhere. Composition, fairly good in V, good in VI. The development of intelligence is very fair.

Industrial training.—Drawing is fair in lower standards, very fair above; better finish is required. The school is again indebted to the Rev. W. Fairweather for his kind guidance in manual instruction. The class has been increased from 16 to 24. Technical instruction is receiving attention in the tailors' shop, and is likely to improve. 10 boys are regularly engaged on the farm, four are milkers and two can plough. There are 16 garden boys. Special lectures have been given by Mr. J. D. Johnstone, F.H.R.S. These are likely to be supplemented by theory lessons to be given by the gardener. The pipe-band is nine strong.

Physical training, &c.—Military drill and free exercises with dumb-bells are given. The Swedish system is being extended in connection with the free gymnastics. A squad of boys gave a fine display of applied gymnastics, in which this school takes a leading place. A large number of cricket and football matches have been played. The football team took part in the Juvenile League and Juvenile Cup Ties of the district. Swimming is practised in the summer, and the boys have enjoyed various outings, lectures, and entertainments.

Health.—Health has been very good. The entries in the medical register comprise one each of conjunctivitis, accidental injury to head, ulcerated cornea, ulcers of legs, enlarged glands, and dislocation of thumb. The last three were treated at the Montrose Infirmary.

Conduct.—The list of offences is extremely short. Beyond one case of absconding and two of attempting to abscond, there is

nothing more serious than two cases of going out of bounds, one of smoking in dormitory, one of overstaying leave, and two of malicious mischief.

General remarks.—The school probably never had a better year than the one just ended. There are undoubtedly good influences at work which are having a telling effect upon the boys.

Kibble.

Visited.—15th and 16th May and 17th December, 1907.

Inmates.—Total number in school, 120; voluntary cases, 0; on licence, 28; absconders, 0.

Staff.—Superintendent and matron, Mr. J. Love M.A. (c.) and Mrs. Love. There has been a change of joinery instructor.

Premises.—New laundry appliances, consisting of engine, washing-machine and extractor are now being fixed. The location of the lower lavatory is now being changed, and four spray baths and a body bath are being added. The premises were, as usual, scrupulously clean throughout.

Standards with awards.—Standard V, 14, good; Standard IV, 15, good; Standard III, 32, very fair; Standard II, 22, good; Standard I, 25, good; Preparatory, 10*. The general award is good. Reading has been particularly well done.

Class subjects.—Singing—sol-fa, good. A little extra attention might be paid to modulation. Mental arithmetic, fair in I and II, very fair in III, good in IV and V. Recitation, good throughout. Geography, very fair in IV and V, good elsewhere. Composition, in V very fair. Science readers have been used and appear to be very well understood. There have been supplementary lessons in elementary mechanics, algebra, and the theory of geometry are given to the seniors. The development of intelligence is increasingly good, and the bright responsiveness of the boys must be mentioned.

Industrial training.—Drawing is generally good in the upper half of the school, but requires improvement below. A really good recommencement has been made in manual instruction; this subject promises well. Technical instruction is receiving improved attention in the tailoring and shoemaking shops; in the latter the boys were particularly keen in answering. 28 boys are engaged on the farm; four of them are milkers, and four others are reported as being able to plough. These higher operations, together with thatching and mowing (with the scythe), might be encouraged. Smaller boys work in the kitchen garden. Lessons on the principles of agriculture are given to the farm boys. Six boys regularly work as carpenters and joiners, and a small outside trade is being cultivated. About 30 outworkers are engaged in box-making, turning, and rope-spinning works. The band performances leave room for more skilful treatment.

* Six of these are newcomers, and all were backward; four or five of them will soon be ready for Standard II.

Physical training, &c.—The boys gave a smart display of free gymnastics. More might be made of the gymnastic apparatus (particularly the horse and parallel bars) with the senior boys. 75 per cent. of the boys are reported as being able to swim. The harriers continue to turn out periodically for a spin, and on fine Saturdays the superintendent takes a rambler team out for a long stretch. The football team played six matches last season against outside teams, scoring four wins. The school spent a fortnight in camp last summer at Kilcallan Bay. The boys gave their annual concert in the Clark Hall to a large audience, and friends have given concerts and entertainments to the boys in the school. The library continues to be well used.

Health.—In February last a serious accident happened to an outworker, which resulted in amputation of his right arm. In August of last year a new boy was found to be suffering from a syphilitic affection of the throat. It was decided to give him a trial, which is so far proving successful. One case of jaundice and a few of boils are the only other entries in the medical journal. The boys looked thoroughly wholesome and well on the day of inspection.

Conduct.—Two cases of absconding, one of attempting to abscond, and one of overstaying leave are recorded. Otherwise nothing more serious than two cases of fighting and a few of smoking is recorded, and the list is short. A mark system has been introduced.

General remarks.—Consequent upon the past year's work there is much upon which both the directors and the staff must be congratulated. There has probably never been more real "grip" shown than at the present time. The provision of laundry apparatus is a step in the right direction, which may reasonably lead to the consideration of the value of some machinery for the shoemakers' shop. Eight boys have been emigrated to Canada during the year, and one to Australia.

REFORMATORIES.—Boys. Town and Suburban.

St. John's, Walthamstow.

Visited.—12th June and 18th July, 1907.

Inmates.—Total number in school, 126; voluntary cases, 0; on licence, 23; absconders, 2.

Staff.—Superintendent, Mr. Wm. McGee. Assistant superintendent, Mr. Edward McGee. There has been a change in the post of shoemaker.

Premises.—A fine gymnasium, 66 feet by 33 feet, has been opened since last summer. The old playroom has been converted into a manual instruction room (wood and metal). The whole house has been oil painted.

Standards with awards.—Standard VI, 20, good ; Standard V, 27, good ; Standard IV, 30, good ; Standard III, 25, good ; Standard II, 15, good ; Standard I, 9, good. The general award is good.

Class subjects.—Singing, good, but the boys should learn to modulate their voices. Composition, good. Recitation, good. Mental arithmetic, very fair in II ; good in other standards. Geograpby, good. History had been intelligently read. The development of intelligence is good.

Industrial training.—Much progress has undoubtedly been made in drawing, and there is every liklihood of still better things to follow. Manual instruction in woodwork has been taken up with spirit ; the school, also, is to be congratulated upon the introduction of metal working, which has made a promising start. Technical instruction in connection with the tailoring and shoemaking is receiving attention ; this work would be advanced by definite schemes of lessons being drawn up. The same remark applies also to gardening. There is a good brass and reed band, and a string band of eight boys has also been started.

Physical training, &c.—The free and applied gymnastics are smart and good. Full use is made of Epping Forest for football and cricket. The school only did fairly at football this year, though it covered itself with glory at swimming. The library is well used by the senior boys.

Health.—The health has been good all through the year. Cases which have been treated are tubercular abscess, rheumatism (2 cases), pneumonia, and conjunctivitis. A fractured wrist and poisoned shin resulted from accidents at football. It would be a good thing if the managers could see their way to appoint a visiting dentist.

Conduct.—With the exception of six or seven cases of absconding there has not been much trouble. It is only fair to the school to say that opportunities for running away are great. One lad has been constantly in trouble, damaging school property, using bad language, &c. A few boys have been punished for fighting, impudence and bullying.

General remarks.—The boys, by their work and manners, showed that good influence was at work. The question of disposal is the chief problem to be faced.

Kingswood.

Visited.—15th May and 16th April, 1907.

Inmates.—Total number in school, 133 ; voluntary cases, 0 ; on licence, 2 ; absconders, 2.

Staff.—Superintendent and matron, Mr. and Mrs. George Whitwell. There have been changes in the posts of assistant matron, drill instructor, bandmaster, and cook.

Premises.—There have been no alterations in the premises.

Standards with awards.—Standard VII, 15, good; Standard VI, 22, good; Standard V, 28, good; Standard IV, 25, good; Standard III, 26, good; Standards II and I, 17, good. The general award is good.

Class subjects.—Singing—sol-fa, instruction very fair, but the boys are taught to sing with much taste. Composition, good. Recitation, fairly good. Mental arithmetic, good. Geography, good. The development of intelligence is good.

Industrial training.—This is one of the best of schools in schoolroom drawing; manual instruction is again first-class; no better manual instruction drawing is turned out anywhere. A trade wood-working department is gradually being developed. Technical instruction is receiving a good deal of attention in the tailoring shop; this may be further developed by the use of an organized scheme of lessons. The gardening boys are receiving a first-rate training. Horticultural lessons are given and note books kept. In this department, too, a syllabus of lessons would be useful. There is a good band. The better disposal of boys is engaging the special attention of the Committee.

Physical training, &c.—Free and applied gymnastics have been improved considerably since last year. At football and cricket the school were the "runners up" for the Challenge Cups in the Home Office League. Fifty boys were passed out during the year as able to swim. Last summer a fortnight was spent in camp at Perlock. The schoolmaster has given an interesting series of lantern lectures during winter months. About 30 boys are now shooting regularly, and some make very good practice.

Health.—A boy has been discharged suffering from chorea, The only other serious case has been one of tubercular abscess of the leg; the boy is now improving. Other cases that have been treated have been facial paralysis, chorea, alopœcia, shingles, ulcerated leg, slight congestion of the lung, two cases of jaundice, and a few skin affections. A dentist inspects the teeth at regular intervals. A considerable amount of milk has been added to the diet. The boys certainly looked well on the day of inspection.

Conduct.—Two boys absconded during the year and were not recovered; there have been three other cases of absconding. In addition to these two boys absconded from the camp, one of them stealing from a shop. There is a mark system, but it does not seem to have as great a hold over the boys as it should. An endeavour should be made to make it *the* important factor in maintaining discipline.

General remarks.—It is pleasant to be able to record so marked an improvement in the school and in the physical training. Another year it might be well to have a "special class" instead of a Standard VII. This has been found an improvement at other schools, and at Stoke Farm Reformatory has met with marked success.

Leeds.

Visited.—30th July and 18th September, 1907.

Inmates.—Total number in school, 149; voluntary cases, 0; on licence, 24; absconders, 1.*

Staff.—Superintendent, Mr. C. J. Walker. Matron, Miss Ellen Twigg. Mr. J. Thornton (Art. 68), assistant schoolmaster, left 29th June, 1907, and was succeeded by Mr. F. Hassall (Art. 68), 2nd July, 1907. Mrs. Walker, mother of the superintendent, who had acted as sewing-mistress, died 29th June, 1907.

Premises.—The premises were clean and in good order throughout.

Standards with awards.—Standard VI, 17, good; Standard V, 25, very fair; Standard IV, 51, good; Standard III, 37, fair; Standard II, 12, very fair; Preparatory, 6, backward. The general award is very fair. Reading is weak, and Standard III has been mismanaged.

Class subjects.—Singing—sol-fa, good; staff notation might well be introduced. Composition, very fair; this should be taught throughout. Recitation, very fair. Mental arithmetic, good in IV, fair in III, very fair generally. Geography, very fair in VI and V, fair in IV and II, poor in III. History readers have been in use. The development of intelligence is very fair.

Industrial training.—Drawing is now regularly organised throughout the school, and only requires a greater appreciation of neatness and finish to bring it up to the average of Reformatory Schools. The manual instruction and cabinet-making deserve special mention. In both the tailoring and shoemaking shops technical instruction is receiving special attention, and with good results. Lessons on the theory of horticulture would be of advantage to the boys engaged in gardening, who already receive a sound practical experience. Altogether, Adel must be complimented upon the progress which is being made in industrial training. Two boys are engaged in the bakehouse, which is under the charge of the matron. The band is a good one, though weak in theory. Eight boys were placed in the army, five of them in bands, but too many seem to return to their old surroundings.

Physical training, &c.—A good display was given of free gymnastics, and a little applied work. The skipping drill is both novel and effective. Swimming is taught to all, and a squad of old hands and beginners showed that it is well taught. Cricket and football are played, and there have been occasional entertainments.

Health.—A boy died in November, in the Leeds Infirmary, from a clot of blood on the brain, and another died in March from miliary tuberculosis. There have been several abscesses, and single cases of scarlet fever, slight pleurisy, and bronchitis. In addition to the doctor's regular visits, the boys' teeth are attended to by a dentist.

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* Mentioned in last year's report.

Conduct.—The conduct has probably never been better in the history of the school. There has been no absconding and no really serious offence. Occasional insolence, pilfering of fruit, being out of bounds, damaging property, smoking, and a tendency to bullying—these are the principal faults recorded. A mark system, carrying money rewards, is effective in maintaining discipline.

General remarks.—Taken all round the past year must be regarded as successful. There is some leeway to make up in the schoolroom, and the attention of the managers may be directed towards a more effective system of disposal.

Parkhead.

Visited.—22nd February, 26th and 27th March, and 25th July, 1907.

Inmates.—Total number in school, 200; voluntary cases, 0; on licence, 26; absconders, 10.*

Staff.—Superintendent, Mr. A. T. Quail. There have been changes of matron, cook and laundress. The night watchman has left and his place is not to be filled up.

Premises.—Building operations have been in progress since October, 1905. During the year under review the new range of shops has been brought into working order; the east wing has been extended, making No. 5 dormitory into a very fine room, and giving new storeroom accommodation, and several rooms have been refloored. A new boiler has been provided, and a new gas supply installed. The drainage system was condemned, and has been overhauled. In this connection it may be hoped that the outside offices will be remodelled in due course. Their present condition is the reverse of sanitary.

Standards with awards.—Standard VI, 20, good; Standard V, 33, good; Standard IV, 32, good; Standard III, 49, good; Standard II, 52, very fair; Standard I, 10, good; Preparatory, 4, backward. Making allowances, the general award is good.

Class subjects.—Singing, improved; a beginning has been made with staff notation. Composition, very fair. This subject should be taught throughout. Mental arithmetic, good generally, not so good in V. and II. Recitation, fairly well understood, but mechanical and without expression. Geography, good. Object and general knowledge lessons have been given. Intelligence is fairly well developed, especially in the Standards above II.

Industrial training.—Drawing is only fair in most divisions, and very fair in the remainder. Cleanliness and finish would of themselves at once raise the standard of this subject. Solid geometery should be taught to Standard VI. In manual instruction the bench work is first-rate. The special drawing has also been very well done, and the schoolroom might well take a hint from it. Technical instruction is receiving hearty attention in the

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* 2 of these are mentioned in previous reports.

tailoring and shoemaking shops. The answering of the boys in the latter shop was particularly smart. The gardening boys are receiving good practical training, and horticultural lessons are to be introduced. This school is rapidly becoming industrially efficient. Noticeable features are the keenness and brightness of the boys at their several industries. A few boys are trained as buglers, and there is a brass band, which, however, is much below the average. It is regrettable that such a large proportion of the boys return, on leaving, to their old surroundings.

Physical training, &c.—This is steadily improving. Drill with rifles, dumb-bells and bars was well executed, and some applied work was done in promising style. At football the school carried off the Inspector's cup, and also the local schools cup, gaining distinction, too, in other branches of athletics.

Health.—There has been a good deal of illness, though much of it is of a minor character. There were, however, two deaths, one in April from otitis, after operation, the other in January from osteomyelitis, caused by a singularly slight injury at football—the boy being hit by the ball on the inside of the knee. There have been several other cases of otitis, and some of conjunctivitis, itch, tonsilitis, rheumatism, and chilblains. A severe case of pneumonia eventually recovered. The most serious accident was one in which a boy, showing how an officer had cut off the top of his finger in a machine, cut off two of his own. A quarterly examination of all boys stripped would appear eminently desirable here, especially as there is no nurse, and the arrangements for attending to minor ailments may be somewhat indefinite.

Conduct.—While the boys do not seem to have got out of hand, the broken year and resulting discomfort gave rise to a feeling of unrest. During the last quarter of 1906 some 15 boys absconded, and another ran away earlier in the year. Of these, eight are still at large, and two others, who absconded previously, have not been recovered. There have been also cases of overstaying leave. Gambling and bullying have called for correction at times, but, among a fairly long list of minor faults, smoking and inattention in the ranks figure most frequently. Boys who give particular trouble may be made the subject of special communication at any time to the inspector. It should be possible largely to reduce the number of entries by means of a well-considered mark system.

General remarks.—There can be no more difficult school to manage than this, where an unduly large number of boys, mainly from one centre, are congregated together. The superintendent may fairly be congratulated on his achievements during an extremely trying year.

Stranraer.

Visited.—27th May, 18th and 19th February, and 10th December, 1907.

Inmates.—Total number in school, 90; voluntary cases, 0; on licence, 27; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. S. J. Ferguson. There have been no changes in the staff.

Premises.—An addition has been made to the front wall and a new gate erected. About two acres of additional market garden have been rented. The premises were clean throughout.

Standards with awards.—Standard VI, 6, good; Standard V, 12, very fair: Standard IV, 20, good; Standard III, 19, good; Standard II, 20, very fair; Standard I, 12, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Attention should be paid to voice production. Composition, very fair in V and VI. Recitation, good throughout. Mental arithmetic, good in IV, fair in III, very fair elsewhere. Geography, good in I and II, but only fair elsewhere. History readers have been used. Object lessons (elementary science to the seniors) have been very well given, and grammar lessons throughout. Boys who passed Standard VI a year ago have received higher instruction in algebra and euclid. The development of intelligence is rapidly improving.

Industrial training.—Drawing is a much improved subject and is likely to advance still further. Geometry should be taught in Standards V and VI. Manual Instruction is carried on energetically. Finish in both the bench work and drawing is now the chief need. Four boys do cabinet work and picture-frame making, and 12 box-making. Technical instruction is receiving attention in the tailoring and shoemaking shops, and if systematised should soon become really first-class. The gardening boys have a capital chance under the present gardener. 12 boys work at rope-making and 11 at netting. There is a business and workmanlike air in the departments generally, and with the new schemes of technical instruction should prove very successful. The pipe-band, 10 strong, is in good form, but some of the uniforms require attention (buttons, &c.).

Physical training, &c.—The whole school gave a display of free gymnastics and gymnastic marching, and a special squad showed some good work over the horse and on the parallel bars The suggestion is now made to increase the number and variety of these exercises. The six or seven weeks which the boys spend in the summer with outlying farmers forms a good change; and a large proportion of the boys are allowed home for holiday. It is gratifying to know that these boys return to the school promptly to time.

Health.—Health has been very good. The list of medical cases is a short one, the most serious being one each of pneumonia (which made a good recovery), incipient spinal complaint, Bright's disease and affection of the groin. There was also one wound, not very serious, caused by a saw, and a boy lost the top of a finger in the cutting press. Greater attention might be paid to cleanliness of skin on the part of the boys.

Conduct.—The list of offences is short and not serious, except as to absconding, of which there have been six cases during the year. One case of attempting to abscond, four of pilfering,

and one of destroying school property are also recorded. The remainder are trifling schoolroom offences.

General remarks.—This school is to be commended for its manifest progress, both in the schoolroom and on the industrial side, a progress which bids fair to continue and increase.

NAUTICAL SCHOOLS.

"Cornwall."

Visited.—11th and 17th June, 1907.

Inmates.—Total number in school, 258; voluntary cases, 6; on licence, 133; absconders, 0.

Staff.—Captain-Superintendent, Captain H. W. Steele, R.N. There has been a change of seaman gunner and seaman instructor. An officer has been appointed as shipping agent.

Premises.—The lavatory has been improved by the addition of a shower-bath. New closets have been made on the middle deck. A drying room has been placed in the fore part of the ship. Two more large ports have been cut in the schoolroom to improve the light and ventilation. Gas has been laid on to both lodge and shore hospital, and a water supply put in the latter.

Standards with awards.—Standard VI, 30, very fair; Standard V, 47, very fair; Standard IV, 58, good; Standard III, 67, good: Standard II, 28, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, very fair. Recitation, very fair in II and IV, good in other standards. Mental arithmetic, good in VI and IV, very fair in other standards. Geography, good in III and IV, very fair in VI and II, but only fair in V. The development of intelligence is very fair.

Industrial training.—Drawing is a rapidly improving subject. The examination tests showed an improvement on the work in the books. The latter would gain by a little better finish. Seven boys work at ship's carpentry, 14 at tailoring, and 12 at sail-making. The last-named class is the keenest on information about their subject. All these departments would gain by regular schemes of technical instruction. All the boys receive instruction in seamanship. The instructors should aim at making the boys more alert and responsive—matters of expert teaching. The alertness of most of the boys in drawing might well be taken as an example. Signal classes have been formed for both semaphore and Morse. The band is fair. A range of workshops on shore is the want here. Since the appointment of a shipping agent, in January, 51 out of 59 have been sent to sea. The number of boys on licence is taxing the staff to the utmost.

Physical training, &c.—The free gymnastic classes should be greatly increased to the exclusion of the musical drill. Far more vigour and precision is required. Football and cricket are regularly played, and the boys are welcome competitors at the athletic meetings of the Home Office schools. In the summer the

boys go to swimming-baths at Barking. Only 50 or so can swim. The ship has won many rowing competitions.

Health.—There has been no death. A boy was discharged, being an epileptic. The most serious cases have been three of pneumonia, one of pleurisy, and one of conjestion of the lung. One boy had hæmoptysis, and it was feared that it might be the beginning of lung trouble; the boy is now on licence. Rheumatism, chorea, single cases of scarlet fever and enteric have also been treated. The last-named was that of a boy who was brought back from his ship to be nursed. The doctor visits frequently, and the boys' teeth are also regularly inspected by a dentist.

Conduct.—There is nothing very serious to record, the most frequent entry being for smoking. One or two boys made unsuccessful attempts to abscond while on shore, and several had to be brought back to the ship for misbehaviour on licence. There have also been occasional cases of pilfering, bad language, disobedience, dirty habits, and the usual schoolroom offences.

General remarks.—There is room for improvement in the schoolroom and in the physical training. The captain and staff are to be congratulated on the pleasant tone which is evident among the boys.

"Akbar."

Visited.—14th May, 3rd June, 11th April, and 1st November, 1907.

Inmates.—Total number in school, 206; voluntary cases, 0; on licence, 94; absconders, 0.

Staff.—Captain Bennett, R.N., left 31st March, 1907, and was succeeded by Captain H. Powley, R.N. Lieut. E. G. O. Beuttler, R.N.R., joined as chief officer 31st May, 1907. Mr. S. Naylor (ex p.t.) succeeded Mr. G. H. Ashurst as second assistant schoolmaster on 1st March, 1907. Mr. W. F. Reynolds joined as gymnastic instructor, June, 1906.

Premises.—Some small improvements have been effected—new dead lights, a new pump, steering model, &c., have been fitted. The ship has been cleaned out below and mess kit improved. The sides of the vessel show signs of age.

Standards with awards.—Standard VI, 32, good; Standard V, 30, very fair; Standard IV, 64, good; Standard III, 32, very fair; Standard II, 40, good. The general award is good.

Class subjects.—Singing—sol-fa, improving. Composition, good in VI, very fair in V. Recitation, very fair. Mental arithmetic, good in VI, V, IV and II, fair in III. Geography, good generally. History has been taken and some object lessons given.

Industrial training.—Neatness and finish are the greatest requirements in the drawing, particularly in the mechanical sections. No formal technical instruction is given in the tailors' shop; this might now be commenced. A class of shoemakers has just been started. Two boys assist the ship's carpenter in jobbing, but their acquirements are apparently not great. Perhaps the ship

may look forward to the establishment of a regular woodwork training shop in the not very distant future. The seamanship classes are being placed on a better footing, and will be no doubt more effective than in the past. The band continues to improve.

Physical training, &c.—This has much improved since the appointment of a permanent instructor. Good progress has been made in both free and applied gymnastics. Football is encouraged, and the boys have been more frequently landed for matches. The boat pulling is good and altogether the outlook is promising.

Health.—There have been two deaths in the 12 months, one from pneumonia in January, 1907, and the other from tuberculous disease of the hip. There were four or five other cases of pneumonia, all of which seem to have recovered. A few cases of bronchitis, pleurisy and ulcer are noted, besides some minor ailments. One boy is now in bed with acute rheumatism and another with sore throat. A lad with stiffened shoulder, brought on by sleeping out in his early childhood, has been certified as unfit for training.

Conduct.—There have been four or five cases of absconding, but all the boys appear to have been brought back. A few cases of stealing, bullying, trafficking in cigarettes, &c., have called for correction. Generally the tone of the boys is encouraging.

General remarks.—A good year's work may be confidently expected. Except as regards the vessel herself the general aspect was perhaps never more promising, and it is to be hoped that a new home for the institution will be secured before long.

The ship was abandoned in November, 1907, and the boys are at present housed in temporary premises at Heswall pending the erection of a new school.

Farnworth.

Visited.—20th March and 15th January, 1907.

Inmates.—Total number in school, 120; voluntary cases, 0; on licence, 61; absconders, 1.

Staff.—Superintendent, Mr. Denis Murphy. The assistant teacher, Mr. J. Autrand (ex pupil teacher) left 30th April, 1906, Mr. P. Dockery was appointed 1st May, 1906, and left 30th June. Mr. H. Hagan (Art. 68) was appointed 10th July, 1906. There has been a change of carpenter, and a female cook has been appointed. New appointments are a gymnastic instructor and a bandmaster.

Premises.—Many improvements have been effected in the premises. The most important of these is the closing in of the covered yard with a glass and wood partition, a most creditable piece of work done by the joiner and the boys. It would be desirable to fence off the school premises from the road in the near future.

Standards with awards.—Standard VI, 14, good; Standard V, 24, good; Standard IV, 22, good; Standard III, 27, very air; Standard II, 19, good; Standard I, 14, very fair. The

general award is good. Writing throughout is above the average. Half of Standard I are new since last inspection.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair. This subject should be taught throughout. Mental arithmetic, good generally, very fair in III and I. Recitation, good. Geography, good in VI, very fair generally. Intelligence is being developed on good lines.

Industrial training.—Drawing is not so good as in some former years. An excellent commencement has been made with manual instruction, and the boys have taken a hand in a good deal of carpentry and joinery, about the premises. The technical instruction in the tailoring and shoemaking shops is at a low ebb, and should receive immediate and special attention. There has been some neglect of apparatus used in giving nautical instruction, nor is the answering of the boys very good. About two acres of land have been brought under cultivation, and boys thus gain an elementary knowledge of gardening. The band is making progress under the new bandmaster. The appointment of an official for the special supervision of old boys is an excellent move.

Physical training, &c.—Since July a visiting instructor has taken the boys in a well-designed course of free and applied gymnastics. With a little extra finish these will be first rate. 26 matches have been played at football, and cricket is played in the summer. It may be possible to arrange for lessons to be given in swimming. The boys have had several concerts and other entertainments, including a picnic.

Health.—The general health has been excellent. In the early part of this year a boy developed phthisical tendencies, but has to all appearance recovered There have been some feverish colds, a case or two of influenza, and one of abscess, but nothing more serious. The doctor visits frequently.

Conduct.—The boy reported as still at large ran away in July, and has not since been heard of. There were some ten other absconders or attempts in that direction. Several of these were due to two very troublesome boys, who have now been disposed of. Various other offences, mainly of a schoolboy character, are reported, but the general tone now prevailing is satisfactory. A system of rewards helps largely in maintaining discipline.

General remarks.—The school is now in real working order in its new quarters, and may be expected to go rapidly ahead.

REFORMATORIES.—Girls.

Devon and Exeter.

Visited.—11th July and 17th January, 1907.

Inmates.—Total number in school, 53; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—Matron, Miss A. Forward. There has been a change of needle-mistress (in March, 1907).

Premises.—Many improvements have been effected during the last few years. This year the playground has been levelled, and some garden seats have been presented by a member of the committee. The workroom has been matchboarded, and several other useful alt rations and additions have been made. All parts were spotlessly clean.

Standards with awards.—Standard VI, 9, good; Standard V, 13, good; Standard IV, 8, very fair; Standard III, 10, fair; Standard II, 11, very fair; Preparatory, 1, newcomer. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, good in VI and V. This subject should be taught throughout. Recitation, very fair. Mental arithmetic, good in VI, V, and II, fair in IV and III. Geography, good in upper group, very fair otherwise. History and science readers have been in use. Intelligence is fairly well developed, but the girls should be taught to speak out.

Industrial training.—In January needlework was found to be rather disappointing, but a change of sewing mistress took place in March and great improvements may be expected. Cookery lessons are given by the superintendent to the older girls. Laundry work is excellent. The clothes, which are of great variety, are washed and ironed in a superior manner. The girls are able to explain intelligently their methods of dealing with the clothes.

Physical training, &c.—Drill is taken in two divisions by the schoolmistress, and is very fair, lacking precision and vigour. A beginning is being made with Swedish drill. A day's outing to Exmouth, and various treats have been enjoyed during the year.

Health.—Health generally has been excellent, one or two sore throats and a case of swollen glands being all that are specially noted. One girl, however, is subject to St. Vitus dance and heart trouble, and is unlikely ever to be fit for training.

Conduct.—The year has gone wonderfully smoothly in this respect. One or two girls have given trouble in small ways, and one frequent offender was transferred to another school. There are others whose future is a matter of uncertainty, but no serious offences have occurred, and a healthy tone prevails. There has been no case of absconding for nearly five years.

General remarks.—The general management of this school is admirable. It should be easily possible to bring the schoolroom work up to a good level.

Sunderland.

Visited.—30th April, 14th May, and 2nd October, 1907.

Inmates.—Total number in school, 50; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Mrs. Kellas. The teacher, Miss A. Richardson (t. & c.), left 29th September, 1906, and was succeeded

on 8th October, 1906, by Miss M. Bines. There have been several changes in the post of kitchen matron.

Premises.—A new iron fire escape has been built from the attic dormitory, and a system of electric bells, for use in case of fire, has been installed. The lavatory has been fitted with hot-water apparatus.

Standards with awards.—Standard ex V, 11, good; Standard V, 11, good; Standard IV, 14, good; Standard III, 6, very fair; Standard II, 8, good. The general award is good. Standard III has several old and dull girls.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Mental arithmetic, very fair in III, good in other Standards. Geography, in two groups, good. The development of intelligence is good.

Industrial training.—Needlework is good. Beautifully fine work is done; repairs are very satisfactory. The senior girls can cut out simple garments from patterns. It would be well to see that all the older girls can work the sewing machine. Eighteen girls have taken a course of lessons in scientific dressmaking and have done good work. Cookery lessons have been given at the Centre by a diplomatised teacher; the practical work done was good. A better idea as to the quantities of ingredients and the prices of foods should be acquired. Laundry work is of the highest quality—the colour as well as the beautiful finish of the clothes are a credit to the school. Answers on method were intelligently given. Eighteen of the senior girls have attended special classes at the Education Centre for dressmaking and cookery.

Physical training, &c.—This is now carried on by a sergeant and has considerably improved. The exercises, free and applied, were certainly good. The girls spent their usual holiday of a fortnight at Middleton-in-Teesdale. Concerts, lectures, picnics, &c. have been enjoyed.

Health.—There have been no deaths. One girl had to be discharged, as she went out of her mind. While getting out of window, in an attempt to abscond, a girl broke her leg. It mended well and she is now in service. A girl who had left was brought back and nursed in the school for hæmoptysis; she is now at her home. Other cases noted are abscess and flat foot. The girls are sent occasionally to the dentist. It would be well if the committee could see their way to having all the teeth regularly examined.

Conduct.—One girl absconded and another planned to abscond. Girls have had to be checked for cheating and stealing, and improper conduct. A new girl was very violent and threatened to kill some of the others, but she has settled down. During the year four girls have been transferred here from other schools.

General remarks.—The results in the schoolroom were very gratifying, as were the demeanour and appearance of the girls. These and other points bear testimony to the excellence of the management.

Arno's Court.

Visited.—1st March and 17th April, 1907.

Inmates.—Total number in school, 70; voluntary cases, 4; on licence, 0; absconders, 0.

Staff.—The school is in the charge of 13 Sisters of the Order of the Good Shepherd. There have been no changes in the staff.

Premises.—A new iron staircase has been put up for emergency in case of fire.

Standards with awards.—Standard V, 17, good; Standard IV, 17, very fair; Standard III, 12, very fair; Standard II. 13, good; Standard I, 7, good; Preparatory, 4, newcomers. The general award is very fair.

Class subjects.—Singing—sol-fa, has been commenced. The girls sing nicely by ear. Recitation, good, so far as it went. Composition, good. Mental arithmetic, very fair. Geography very fair. The development of intelligence is very fair.

Industrial training.—Needlework is quite above the average. All the girls are receiving careful attention in this department. Each girl repairs her own clothes; almost all the older girls can cut out simple garments, and many can use the sewing machine. Elementary dressmaking is also being taught. Laundry work is creditably done. The clothes are a good colour and nicely finished. All the senior girls have their turn at washing and ironing. Cookery lessons are given by one of the old scholars; useful notes are kept. The girls have a good idea of quantities required and the prices of foods. A little more theoretical instruction, including the relative values of foods, might, with advantage, be given.

Physical training, &c.—The Swedish exercises, as usual, were good, and the girls' interest well maintained. The school had a trip to the sea, and several trips to the country during the summer.

Health.—There was a death from enteric fever in December. The drains have since been tested but were found to be in good order. There have been several cases of influenza, but otherwise the health has been good.

Conduct.—The conduct appears to have been uniformly good. A few cases of unpunctuality and careless work have had to be checked.

General remarks.—The schoolroom was examined earlier this year; allowances had therefore to be made. But the girls are wanting in power of concentration and accuracy.

Red Lodge.

Visited.—22nd May, 16th April and 26th March, 1907.

Inmates.—Total number in school, 42; voluntary cases, 1; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss Langabeer. There have been changes of laundry matron and kitchen matron.

Premises.—An outside iron staircase has been erected for use in emergency, and some minor improvements have been made. The premises were clean throughout.

Standards with awards.—Standard ex-V, 4, good; Standard V, 9, good; Standard IV, 9, good; Standard III, 8, good; Standard II, 9, good; Standard I, 3, good. The general award is good. Reading is specially good, and the written work is creditably neat.

Class subjects.—Singing—sol-fa, good. The introduction of staff-notation might be considered. Composition, good. Recitation, particularly good. Mental arithmetic, good. Geography, good. History readers have been used to good purpose. Intelligence is well developed.

Industrial training.—Needlework generally is good. Patching and repairs very much improved. Cutting-out, machining and dressmaking are attempted. It would be well to see that *all* the elder girls, especially those who are soon to leave the school, have some knowledge of these particulars. Laundry work is somewhat disappointing. Ironing is well done, but the clothes are a bad colour, and generally the washhouse falls short of the high level reached in other departments. Special cookery lessons are given by the superintendent with success. The senior girls take, in turn, the entire responsibility of cooking a dinner.

Physical training, &c.—Elementary Swedish drill is taken regularly, and a good display was given. The girls go for walks two or three times a week, and are now looking forward to the annual fortnight at Burnham. This is only one of the many outings and treats which fall to their lot.

Health.—A girl has been sent home as defective, and another is subject to epileptiform attacks. Otherwise the health has been excellent.

Conduct.—There appears to have been little or no misconduct of more than a minor character. Such offences as have occurred seem to have been regulated by means of the mark system.

General remarks.—Though one of the smallest in point of numbers, this school continues to be effectively and capably managed. The services of a highly qualified laundress are, however, needed.

Liverpool.

Visited.—22nd March, 15th February, 11th June and 17th September, 1907.

Inmates.—Total number in school, 79; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss J. T. Maxwell, was succeeded by Mrs. A. Horth on 1st May, 1907. There have been changes of laundry matron and sewing matron.

Premises.—There has been no alteration in the premises. All parts were beautifully clean. The sewing-room is especially cramped.

Standards with awards.—Standard ex-V, 10, good; Standard V, 15, good; Standard IV, 29, good; Standard III, 18, good; Preparatory, 7, good. The general award is good. Work throughout is creditably neat.

Class subjects.—Singing, both notations, good. Compositions, good. This might well be taught throughout. Mental arithmetic, good. Recitation, good. Geography, good. Domestic economy is taught, and the girls are well up in current events. Intelligence is well developed.

Industrial training.—Needlework is good, that of grade I being exceedingly neat and clean. Cutting out and machining have received care. Stocking mending has improved, and general repairs are well done. Ordinary cookery lessons are given by the assistant matron, but no special cause is followed. Laundry work is good. All the older girls take part in the laundry, and can wash and iron well. Disposal is well looked after. There seems to be no difficulty in finding good places for the girls.

Physical training, &c.—A most promising start has been made with Swedish drill under the direction of the schoolmistress. The girls go for walks weekly. The annual camp at Heswall was a great success. Part of the time was spent usefully in making collections of wild flowers and preserving them in books.

Health.—A girl who has always been delicate has had a severe attack of pneumonia, but is now convalescent. This is the only case of a serious nature. There have been three cases of tonsilitis, one of rheumatism, and a few minor ailments. The doctor holds a quarterly examination, and a record of measurements and weights is kept. The girls looked remarkably well on the day of inspection.

Conduct.—A girl, with a bad record previous to admission, ran away twice and induced a girl to go with her each time. She is now doing well in a situation. The few remaining entries relate to ordinary misdemeanours. A system of rewards and privileges aids in the maintenance of discipline. The general conduct has been satisfactory.

General remarks.—While the premises are inconvenient in several respects, the management of the school has been admirable. A high ideal is set before the girls, and their successes in after-life show that their time here has not been spent in vain.

Toxteth Park, Liverpool.

Visited.—21st March, 6th February, and 17th September, 1907.

Inmates.—Total number in school, 66; voluntary cases, 0; on licence, 4; absconders, 0.

Staff.—Superintendent, Miss R. H. Phillips (t. and c.). Miss Weekes, mistress in training, left 1st September, 1906, and was

succeeded by Miss Stubbs, who left 13th November, and was succeeded on that date by Miss A. Fox.

Premises.—The premises were exquisitely clean throughout. The fire-escape staircase is not in all respects satisfactory.

Standards with awards.—Standard V, 24, good; Standard IV, 15, good; Standard III, 10, good; Standard II, 4, good; Standard I, 8, good; Preparatory, 4, making good progress. The general award is good. The written work was beautifully neat.

Class subjects.—Singing, exceptionally good. The voices are admirably trained by a visiting instructor. Composition, good in V, but should be taught throughout. Mental arithmetic, good. Geography, good in V, very fair in IV and III. Recitation, good. Some useful lessons in domestic economy have been given to the senior girls. Intelligence is well devoloped.

Industrial training.—Needlework is well done, but the older girls require to work more independently; the different stitches are all good, and more cutting out is now being practised. Dressmaking is carefully taught; the work done is creditable, but here, too, the girls should depend more upon themselves. Cookery is splendidly managed by most of the older girls. Most of those who will shortly pass out of the school can manage ordinary everyday dishes, and are about to take a more advanced course. Laundry work is much improved; there is plenty of variety; some of the girls are expert, and able to undertake any class of laundry work. Disposal and after-care of the girls receive every attention.

Physical training, &c.—Drill is taken daily. The displays of dumb-bell drill and of free exercises on the Swedish system were admirable. The girls had an enjoyable fortnight in camp at Heswall, where they were joined by some of the former scholars, who managed to get their holidays at that time. Part of the time was occupied in practical nature-study. Ambulance classes are held, and 27 girls have obtained first-aid certificates during the year.

Health.—Health had been excellent up to the time of the inspection. The only cases of note are one of scarlatina at present in hospital, and one of measles. A new girl developed scabies, but was speedily cured, and the remaining entries serve only to show the attention which is paid to the smallest ailments. There are two or three girls here distinctly defective in intellect. The appointment of a dentist is now generally regarded as desirable.

Conduct.—Discipline has been skilfully maintained and the conduct has given very little trouble. A new girl attempted to abscond and another new girl caused some disturbance for a time, but both have settled down. Apart from a single case of dishonesty there has been nothing beyond a few trivial faults.

General remarks.—High praise must be given to the sterling work accomplished here—work characterised by sound sense, intelligence, and resource.

Lancashire R.C. Girls.

Visited.—24th April and 13th February, 1907.

Inmates.—Total number in school, 73*; voluntary cases, 0; on licence, 9; absconders, 3.

Staff.—The staff consists of Sister Catherine and five Sisters of Charity. Miss Watton, assistant mistress, left, and was succeeded on 27th February, 1906, by Miss Peters. Sister Magdalene left the kitchen on 5th October, 1906, and Sister Frances followed on 10th October, 1906.

Premises.—There have been no structural alterations. All parts are clean. The wardrobe-room has been fitted with boxes for each child's clothes, and a new shed for the van and one for coal have been erected. All the woodwork and cement about the slopstone in scullery have been renewed.

Standards with awards.—Standard ex-V, 5, good; Standard V, 11, good; Standard IV, 9, good; Standard III, 19, good; Standard II, 16, good; Preparatory, 12, mostly newcomers, making progress. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V, good. Recitation, good in the upper, very fair in the lower standards. Mental arithmetic, good in all standards except IV, where it is almost good. Geography, good throughout. History and domestic economy receive care. Intelligence is well developed.

Industrial training.—Needlework, on the whole, is much improved; the laundry girls now receive special care. Cutting out requires attention, and an effort should be made to allow girls, before leaving the school, to have some idea of working the sewing machine. Cookery lessons have been resumed after a short break. Laundry work is good. Work of the finest order is done in the most satisfactory fashion. Answers on theory were good. All the older girls are trained in laundry work.

Physical training, &c.—Free exercises are fairly well done; there is rather too much strain upon the upper, and scarcely sufficient exercise for the lower limbs. Fire drill has been introduced and is practised regularly. The girls carry themselves well. There have been the usual walks and treats, including visits to lectures and entertainments, and two outings to New Brighton for the day.

Health.—Health has been satisfactory. One girl underwent an operation for goitre, and one has had a toenail removed. There have been one case of impetigo, two of tonsilitis, one of gastric catarrh, and one mild case of influenza. One girl scalded her foot and is at present in bed, but she is progressing favourably.

Conduct.—The girls are well disposed and give very little trouble. Three new scholars absconded in July, but were soon brought back. With this exception the offences have been few, and those of a trifling nature.

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* Including one girl in sickroom.

General remarks.—The school has passed a very creditable examination in all departments. The schoolroom instruction is on broad lines, and appears to be thoroughly enjoyed by teachers and girls alike. The arrangements for industrial training are greatly improved, and generally there is every evidence of steady advance.

Ipswich.

Visited.—12th July, 18th May, 12th August, 1907.

Inmates.—Total number in school, 41; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss Sarah Callaghan. There have been two changes in the post of assistant matron, the present one being Miss K. Harvey, appointed 11th July, 1907, and there have been two changes in the post of laundry matron, the present one being Mrs. Le Feuvre, appointed 11th September, 1906. Miss E. Pook was appointed mistress in training 1st April, 1907.

Premises.—Premises have been re-coloured and repainted inside and outside. Repairs and alterations have been made in the private rooms, and the boilers in the washhouse have been rebuilt. All parts of the house are as clean as the age and situation of of the buildings will permit. Desks are required in the schoolroom.

Standards with awards.—Standard VI, 5, just good; Standard V, 13, very fair; Standard IV, 12, fair; Standard III, 11, fair. Arithmetic is weak. The general award is very fair. There is plenty of room for improvement.

Class subjects.—Singing—sol-fa, good. Composition in Standards V and VI, good. Recitation, very fair in all classes. Mental arithmetic, very fair in VI, fair in V, poor in IV and III. Geography, very fair in all classes. History lessons taken in all standards. Domestic readers intelligently used. Ambulance lessons have been taken by 18 of the older girls.

Industrial training.—In needlework there is a great improvement in the elementary stitches, and it is hoped that steady progress will now be made in advanced work including cutting-out. The laundry is well managed, the girls on the whole doing most creditable work. Special cookery lessons have been given at the technical centre to a number of the older girls, but so far, only very elementary work has been taken. Each girl has her turn at different duties, and is allowed extra time at such as she has a special taste for.

Physical training, &c.—Dumb-bell, bar-bell and free exercises were performed in a vigorous manner; the positions were good. New marching and breathing exercises have been introduced this year. The general gait of the girls might be improved by a drill lesson of a few minutes' duration each morning in addition to those of the visiting instructor, who attends twice a week. The usual walks and outings have been taken and the Christmas gathering was again enjoyed

Health.—A few of the new scholars were anæmic on admission, but soon improved. There have been a few cases of dyspepsia, psoriasis and impetigo, but, on the whole, the health has been quite satisfactory.

Conduct.—A few of the new girls have been troublesome, one having attempted to abscond. There is also a senior girl* who has been insubordinate and is at present causing much trouble in the school. With these exceptions the girls have been amenable to discipline, and, on the examination day, were most attentive and anxious to please.

General remarks.—It is pleasant to see so much improvement in the general tone of this institution. A great effort should now be made to give the school a fresh start in better surroundings. The home has, this year, suffered a great bereavement by the death of its respected trustee, H. Chapman, Esq.

Warwick.

Visited.—23rd July and 9th December, 1907.

Inmates.—Total number in school, 13; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss Lockington; schoolmistress, Miss Burton (c.), 1st July to 1st August, succeeded by Miss Thwaites (ex p.t.) October 9th, 1907; assistant-matron; laundress.

Premises.—A new building has been erected on an open and pleasant site about two miles from Kenilworth. The rooms generally are bright and airy, and the general equipment is in accordance with modern ideas. A few alterations were found necessary with a view to improving the ventilation of the laundry, and these were being carried out on the occasion of the second visit.

Standards with awards.—The classes were arranged as below:—Standard V, 1; Standard IV, 3; Standard II, 8; Preparatory, 1.

Class subjects.—Most of the girls had come in in a backward state, but very fair progress had been made in the circumstances, though practically all the subjects, including geography, will need very special attention to enable the classes to make a good show at the next examination.

Industrial training.—Owing to scarcity of girls and necessary alterations to the laundry, this branch of the training has hardly been able to make a fair start as yet. The laundress and the schoolmistress have been assisting in the teaching of needlework, and it is proposed that the girls shall receive special cookery lessons.

Physical training, &c.—As the number of girls increases, regular drill of a suitable kind will no doubt be introduced. Walks, &c., have been arranged, and there is plenty of room for outdoor recreation.

* Subsequently transferred to Sunderland.

Health.—The health appears to have been very good throughout.

Conduct.—A mark system has been introduced, and so far things have gone smoothly, the girls looking well and contented.

General remarks.—This old-established school is now making a fresh start in a new building on a more suitable site, and is deserving of all the encouragement which the committing authorities can afford it. Much difficulty has accrued through dearth of admissions.

Dalry.

Visited.—23rd April and 6th May, 1907.

Inmates.—Total number in school, 45; voluntary cases, 1; on licence, 1; absconders, 0.

Staff.—The superintendent, Mrs. McCrae, left 4th December, 1906, and was succeeded by Miss Barbara Murray. Miss Jessie McKay succeeded Miss Murray as laundry matron, and there have been two changes in the post of house matron. The post is at present held by Miss Bessie Dods (appointed 25th March, 1907).

Premises.—There has been no change in the premises.

Standards with awards.—Standard V, 13, good; Standard IV, 8 good; Standard III, 7, very fair; Standard II, 13, good; Standard I, 3, new comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Mental arithmetic, very fair generally. Geography is taken in one group and is good. The development of intelligence is good.

Industrial training.—All branches of industrial work are managed by diplomatised teachers. The work all round is good. Needlework is of fine quality; all the stitches are good, and the repairing of clothing in this school is now above the average. A little more cutting out should be encouraged among the older girls. A good attempt at practical cookery was made on the day of visit, most of the dishes being a success. Useful notebooks are kept. Laundry work is done in a most intelligent manner. Every girl who is in her last year can wash well and iron very satisfactorily.

Physical training, &c.—The girls went through some Swedish exercises with considerable spirit, and for the most part hold themselves well. Some Swedish games have been taught the girls, and they have games of croquet, &c., out of doors. Various entertainments have been given, and walks in the country are frequent. Three well-behaved girls were allowed to go home for a few days, their homes being respectable.

Health.—One girl died from pneumonia in February. There have been several cases of abscess, one tubercular, which was sent to the infirmary for operation, and appears to have recovered. Two cases of tubercular glands will be sent at once to the infirmary for operation. There has also been one case each of gastric catarrh,

conjunctivitis, and erythemia. One girl has been put on licence as mentally deficient. The girl looked bright and well on the day of inspection.

Conduct.—Two new girls absconded in January, but were brought back in seven hours. The conduct, on the whole, appears to give very little trouble, the list being made up of a few cases of pilfering, lying, laziness and disobedience. The most serious case is, perhaps, that of the girl who persuaded the two new girls to abscond.

General remarks.—Mrs. McCrae resigned in December. She will be able to look back on her tenure of office with the satisfaction of having done exceptionally good work. The school is one of the most homely under inspection, and the girls and staff appear to be on thoroughly good terms.

Chapelton, Glasgow.

Visited.—12th April and 22nd March, 1907.

Inmates.—Total number in school, 56; voluntary cases, 3; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss W. G. McMillan. Miss Macdonald is now kitchen matron. Miss A. Maxwell was appointed mistress in training, 1st February, 1907.

Premises.—There has been no change in the premises. All parts were beautifully clean and in good order. The fire-drill is specially good.

Standards with awards.—Standard VI, 9, good; Standard V, 9, good; Standard IV, 12, good; Standard III, 14, good; Standard II, 7, good; Preparatory, 3, newcomers. The general award is good. Work is creditably neat.

Class subjects.—Singing, sol-fa, good. Composition, good. Mental arithmetic, good. Geography good. Recitations were well rendered throughout. Object lessons have been given to the juniors, and the seniors have had domestic economy, and a practical ambulance course. Intelligence is well developed.

Industrial training.—Needlework is good. All the stitches done on the day of the visit were very creditable. Unfortunately the repairs did not at all correspond with the other good work done. The older girls can cut out, machine, and manage some dressmaking. Cookery lessons have been carefully taught; intelligent answers on quantities and prices of foods were given by the girls. Laundry work is, as usual, good. All the senior girls who are strong enough take an active part in the laundry. A large amount of good work is turned out weekly. Ambulance work still receives attention, the note-books kept on this subject are most useful. Good lessons in domestic economy have been given to the girls in the schoolroom.

Physical training, &c.—A fine display of Swedish drill was given. This is taken weekly by an expert instructor, and is supplemented by exercises with clubs and dumb-bells. The girls

go for walks weekly. Frequent concerts are held, and there are occasional outings, including a fortnight at Ascog, in Bute.

Health.—Health has been excellent. Single cases are recorded of tonsilitis and conjunctivitis, and a new girl introduced itch, which, however, did not spread. Two girls are subject to fits, and two are defective mentally: but the large majority look as healthy and robust as could be wished.

Conduct.—The list of offences is satisfactorily short. A new girl, who showed no disposition to settle down, was transferred to another school. The remaining entries relate to disobedience, deceit, pilfering, and so forth, but there has been no trouble of a serious nature. The system of marks and rewards is effectively worked, and a healthy tone undoubtedly prevails.

General remarks.—It will be evident from the foregoing paragraph that the school worthily maintains its prestige.

APPENDIX No. II. (B).

INDUSTRIAL SCHOOLS.—Boys. Farm and Country.

Dorset.

Visited.—10th May, 1907.

Inmates.—Total number in school, 60; voluntary cases, 0; on licence, 21; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. J. W. Walker. There has been a change of bandmaster.

Premises.—The premises were clean and in good order throughout.

Standards with awards.—Standard VI, 9, fair; Standard V, 5, fair; Standard IV, 13, very fair; Standard III, 10, fair (barely); Standard II, 12, very fair; Standard I, 7, good (just); Preparatory, 3.* Making due allowance for a short and broken year the general award is barely very fair. Arithmetic is very weak and reading is also backward.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good in I, very fair in V and VI, fair in II and IV, poor in III. Recitation, very fair in III, IV and VI, fair elsewhere. This subject requires clearness and expression. Geography, good throughout. Composition in V and VI, very fair. Object lessons have been given to the juniors, and lessons on the principals of agriculture to the seniors. The development of intelligence is very fair.

Industrial training.—Drawing is fairly good. (This has been taught better than any other schoolroom subject.) Manual instruction was commenced in February of this year. Technical instruction is receiving attention in both the tailoring and shoe-

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* Two newcomers; one, weak intellect.

making shops, and in both the boys show keenness. The training of the farm and garden boys is enhanced by the use of experimental plots, for the growth of wheat, oats, potatoes, and mangolds. Full records are kept for the County Council; it would be an advantage if the boys were taught to help in this.

Physical training, &c.—The boys gave a display of elementary free gymnastics. These might easily be much extended; and the introduction of a vaulting-horse would be most useful. Football and cricket are played against outside clubs; and long country rambles are frequently taken.

Health.—Few boys have required treatment. There have been two cases of pneumonia, but both made good recoveries. A boy (over 16) returned to the school between change of situations, and died suddenly from heart disease.

Conduct.—The list of offences comprises only eight cases, among which are two of absconding, one of leaving premises without leave and one of pilfering.

General remarks.—On the industrial side the school is undoubtedly advancing, but the schoolroom work requires more skilful treatment. The exceptional weakness in arithmetic is a serious matter, the more so as this is the third year in succession that attention has had to be called to this subject. A good word must be said for the wholesome and healthy appearance of the boys (clear evidence of really good domestic care), and also for the discriminating disposal of the boys.

Durham.

Visited.—12th and 20th March and 26th August, 1907.

Inmates.—Total number in school, 124; voluntary cases, 0; on licence, 13; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. J. Goodenough. Mr. Jolly, the assistant schoolmaster, left 29th September, 1906, and was succeeded by Mr. James Gray, 9th November. There have been changes in the post of tailor.

Premises.—The schoolroom has been fitted with new desks. The interior of the building has been painted.

Standards with awards.—Standard VI, 8, good; Standard V, 12, good; Standard IV, 19, good; Standard III, 15, good; Standard II, 29, good; Standard I, 28, good; Preparatory, 13, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, V and VI, good. Recitation, good. Geography, good. Mental arithmetic, good. Object lessons, good. The development of intelligence is good.

Industrial training.—Drawing shows steady attention. The special manual instruction drawing is also well done, but the bench-work has not been taught sufficiently, as in previous years. There are five boys in the trade class who are receiving practical training in doing work about the premises. Detailed schemes of

technical instruction are required in the tailoring and shoemaking shops. 32 boys are engaged about the farm and garden. All the farm boys learn milking; this is an excellent feature, but special attention should be paid to cleanliness. There is an efficient brass band.

Physical training, &c.—A good display of free gymnastics, marching, and exercises with dumb-bells, wands, and Indian clubs was given, the three last-named being better than the former. The whole just miss being excellent through want of smartness and discipline in the ranks. Football is keenly played, and the school stands high in the local league.

Health.—A boy was in the infirmary on the day of inspection, recovering from rheumatic fever. A case of shingles, some skin affections, cases of abscess and sore eyes have been treated in the course of the year. In the summer several boys suffered from tonsilitis and one from quinsy, and there were in the winter a number of chilblains. Swollen glands are the chief trouble.

Conduct.—Among new boys there have been six cases of absconding and two of attempting to abscond. Other faults that have needed correction have been smoking, petty theft, and being disorderly and troublesome. With regard to the mark system it would be well to publish a list monthly.

General remarks.—It is a pleasure to be able to report such a distinct improvement in the schoolroom. The work throughout was careful, and the boys were attentive and well-mannered.

Purbrook.

Visited.—27th May and 10th September, 1907.

Inmates.—Total number in school, 86; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. T. W. Kitching. The assistant schoolmaster, Mr. B. T. Wade (ex p.t.) left 4th March, and was succeeded by Mr. S. Haycock (ex p.t.) 6th March. There have been changes of assistant matron and cook.

Premises.—The premises were clean and in good order throughout. A telephone has been installed.

Standards with awards.—Standard VI, 16, good; Standard V, 16, very fair; Standard IV, 13, very fair; Standard III, 13, fair; Standard II, 11, very fair; Standard I, 6, good; Preparatory, 5, making progress. The general award is very fair. Reading is weak, and the work generally is uneven.

Class subjects.—Singing—sol-fa, very fair. The introduction of staff notation is recommended. Composition, very fair. Recitation, very fair. Mental arithmetic, good in VI, fair in III, very fair otherwise. Geography, very fair. Some object lessons have been given. The development of intelligence is very fair. The boys do not answer brightly.

Industrial training.—The drawing is a little rough; greater attention to neatness and finish would well repay the effort.

Technical instruction has been dropped in the tailoring shop; it should be recommenced at once in accordance with a good scheme of lessons. A properly arranged scheme of lessons would also be of advantage in the shoemaking shop. The great industry of the school is market gardening. In the well-kept kitchen and flower gardens the boys undoubtedly receive a good practical training. The superintendent is an enthusiast, and this might well be turned to account in providing technical instruction in this department also. Purbrook is one of the few schools now without a wood-working department. It is hoped that a way may soon be found of giving this valuable additional training to the boys. The brass band is a really good one, efficiently taught in theory as well as practice. Disposals are well regulated.

Physical training, &c.—A creditable display of free gymnastics was given, followed by a little applied work. The proposed gymnasium would be of great benefit to this side of the training. The boys have the advantage of a splendid field for cricket and football. At the end of last year practically all the boys could swim the length of the open-air bath. There is a good library, and indoor games for winter evenings.

Health.—Health has again been excellent. The cases reported include nothing more serious than one each of colic, otorrhœa, boils, abscess, and Raynand's disease. The doctor visits frequently, and makes a formal inspection of all the boys quarterly. The teeth do not receive the attention usual in schools of the kind.

Conduct.—A new boy, who came with a bad record, was sent to a reformatory for absconding. Another boy made an attempt to run away; he is now doing well in farm service. The conduct, as a whole, appears to have been satisfactory.

General remarks.—It should be possible, by a steady and energetic year's work, to raise the schoolroom work to a good level, In other respects the school will never lose its prestige while it retains the interest of its present excellent friends.

Church Farm.

Visited.—5th April, 1907.

Inmates.—Total number in school, 80; voluntary cases, 12; on licence, 6; absconders, 0.

Staff.—Superintendent, the Rev. J. K. Wood. There has been no change in the staff. Six boys over 16 years old sleep in the dormitories and are paid for work on the farm.

Premises.—The main cowshed has been enlarged so as to hold all the cows, at present numbering 34. A steam boiler now provides hot water for the dairy and lavatory, besides being a saver of labour. The dining-room ceiling and walls are being matchboarded. Fire drill should be properly organised and regularly practised.

Standards with awards.—Standard VI, 10, good; Standard V, 13, good; Standard IV, 19, good; Standard III, 13, good;

Standard II, 9, good ; Standard 0, 3, a newcomer and two backward boys. The general award is good. There is an evening school, in which are 13 full-timers. Arithmetic is not part of the curriculum

Class subjects.—Singing—sol-fa, good. Recitation, good. Composition, good. Mental arithmetic, very fair in III, good in other standards. Geography, good. Elementary science, good. The development of intelligence is good.

Industrial training.—Drawing shows steady attention, and the average is fairly good. The boys have the disadvantage of working on unusully poor paper. The general work and the drawing in manual instruction is good, but the boys hardly maintained the former credit of the school in the practical test. Two boys are regularly engaged in carpentry and joinery about the premises. Technical instruction in the tailors' shop is good as far as it goes. There is promise of much development in the near future. A commencement in technical instruction has been made in the shoemakers' shop, which is worthy of warm encouragement. The farm and milk-walk give good experience to the boys. There are also six acres of market garden. The head schoolmaster gives horticultural lessons to the whole school, and the 11 garden plots worked by 22 boys are in capital order. The boys' garden account books would be all the better for showing expenditure as well as income. Their garden notes of events books are an interesting and useful feature.

Physical training, &c.—Free gymnastics and exercises with dumb-bells have improved, but the boys compare unfavourably with most schools in point of physical development. The exercises on the horse or other applied work are valueless till muscle has been formed by the "free" work. The boys play cricket and football, but do not belong to the league of Home Office schools.

Health.—The general health has been good. One boy was successfully operated on for rupture. There have been five cases of eczema and one of acne. A case of influenza and a whitlow are the only cases mentioned. A dentist visits and examines all the teeth periodically. The boys are weighed every six months.

Conduct.—There has been nothing serious in this respect. Carelessness, disobedience and laziness have had to be corrected. The mark system is sufficient to maintain the general order of the school.

General remarks.—The boys are bright and attractive in manner, and reflect credit on those in charge of them. The large dairy farm affords a fine training for the lads. It must not, however be allowed to interfere unduly with other necessities of school life.

Kent.

Visited.—30th and 31st May and 21st June, 1907.

Inmates.—Total number in school, 183; voluntary cases, 0; on licence, 7 ; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. T. S. Babington. There have been changes of tailor and of cook and baker.

Premises.—The main building is being painted in attractive colours. All parts are thoroughly clean.

Standards with awards.—Standard VI, 17, good; Standard V, 26, good; Standard IV, 38, good: Standard III, 54, good; Standard II, 23, good; Standard I, 12, good; Preparatory, 11, good. The general award is good. Reading is still below the best, and writing occasionally shows a tendency to backhand, which should be corrected.

Class subjects.—Singing—sol-fa, very fair. Composition, fairly good. A foundation for this should be laid in the lowet standard. Recitation, good. Mental arithmetic, good generally, hardly so good in V. Geography, good on the whole, very fair in IV. History readers have been used to good purpose. Object lessons in agriculture have been given to all. Intelligence is well developed.

Industrial training.—Standards III and IV take the lead in drawing. With a greater appreciation of possibilities on the part of the teachers the remaining standards would soon equal these. Better finish would also be an advantage. Some exceptionally good work has been done in manual instruction during the year; the special drawing is also good. The leading boys might now be encouraged to do bolder constructive work. Regular technical instruction might now be undertaken by the tailor-instructor. The farm and garden boys would be all the better for similar provision. The brass and reed and string bands are among the best of their kind. Thirty-one boys have been placed in the army this year, making a total of 555 in 20 years. Great care is taken in disposal and supervision afterwards.

Physical training, &c.—A fine display of free gymnastics was given by the whole school, and various squads went through bar-bell [illegible] Indian club exercises, and some applied gymnastics in exe[illegible] Cricket and football receive every encouragement, and [illegible] both games matches with outside teams are played. Swimming is taught in the open-air bath.

Health.—Work has been much interfered with by an epidemic of scarlet fever, which began in January and affected nine cases. All recovered satisfactorily, and, except for two fractured arms and a case of synovitis, which was sent to a convalescent home at Margate, the health has been excellent. The doctor makes a special examination quarterly, and warmly commends the arrangements made for nursing and tending minor ailments. The dietary, too, is exceptionally good; and the boys have a well-fed, muscular, and wholesome appearance, such as few schools, if any, can surpass.

Conduct.—The few faults relate almost entirely to laziness and disobedience. One boy, however, for repeated acts of dishonesty was sent to a reformatory. The mark system is most comprehensive and effective. A high moral standard is set, and there is evidence that the good tone inculcated here continues after the boys have left.

General remarks.—It only remains to repeat, with emphasis, the high praise given in former reports. It is a pity, indeed, that

more of the people of Kent do not interest themselves in a school which does the county infinite credit. No visitor could fail to be impressed by the spirit of true manliness which prevails everywhere.

Desford.

Visited.—5th and 10th April, 1907.

Inmates.—Total number in school, 200; voluntary cases, 0; on licence, 11; absconders, 0.

Staff.—Superintendent and matron, Mr. C. Oxley (t. & c.) and Mrs. Oxley. The assistant teachers, Messrs. Cartwright and Selley, left on 8th October and 31st August, 1906, respectively, and were succeeded by Mr. W. J. Gulliver (t. & c.) 1st September, 1906 and Mr. C. A. Thody (c.), 12th October, 1906. There have also been changes in the posts of housemaid, cook, laundress and dairymaid.

Premises.—Additions have been made to the kitchen for the superintendent and staff. New greenhouses are being built.

Standards with awards.—Standard VII, 1, good; Standard VI, 6, good; Standard V, 32, good; Standard IV, 24, good; Standard III, 47, good; Standard II, 34, good; Standard I, 19, good; Preparatory, 12, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Geography, good. Elementary science, good. Mental arithmetic, good. The development of intelligence is good.

Industrial training.—Drawing shows good steady work all through; in several sections the work is very good indeed. Mechanical drawing is rapidly becoming a really strong subject. Good steady work has also been done in manual instruction, in which so reliable a foundation has been laid that the instructor may well branch out into higher constructive work with the leading classes. Technical instruction in tailoring, shoemaking and horticulture is given with first-rate effect. In no school do the boys show readier response. The practical training given in the market garden is exceptionally good, while on the farm the boys gain a good acquaintance with the details of the management of stock. There is a good band, which is much in request for bazaars and fêtes. The supervision of boys who have left is very carefully exercised by the superintendent. In this connection it is interesting to note that 70 per cent. of the boys went this year into occupations directly connected with their school training.

Physical training, &c.—No school has organised its physical training better. The three squads for free gymnastics comprise the whole school. The scheme is excellent and the work wanted nothing for vigour and precision. The applied work is very fine. Boys better set up it would be hard to find. At the sports of the Home Office Schools Association six firsts were obtained out of eight events. The long jump of 17 feet 4½ inches is

probably a record for so young a boy. Cricket and football are regularly played, and there are plenty of amusements in the winter evenings.

Health.—The health was very good till April, 1907, when there was an increase of slight ailments, tonsilitis and influenza. The case which has given most anxiety is that of a boy who injured his thigh and is now in hospital; it is feared that one leg will be shorter than the other. Another boy has suffered from a sloughing wound on the shin caused by a kick from a horse. Other cases which have been treated have been of hernia, otitis, boils, eczema, and ringworm. Ten cases of defective sight have been treated by the oculist. The boys' teeth are regularly examined.

Conduct.—Two new boys absconded but were quickly brought back, and there has been a normal amount of trouble from disobedience, pilfering, and lying. The worst case of the year was the theft of money from a visitor to the school. The mark system is well worked.

General remarks.—The school deplores the loss of two members of its Committee, Mr. Baines and Mr. Potter. The former had been on the Committee for 25 and the latter for 20 years. Both had never failed to show the keenest interest in all that concerned the welfare of the boys. The school keeps up all its best traditions, and it is satisfactory to hear of old boys obtaining a master's certificate from the Board of Trade, or otherwise securing good positions for themselves.

Buxton.

Visited,—3rd and 22nd July, 1907.

Inmates.—Total number in school, 63; voluntary cases, 8; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. A. M. Babington. The manual instructor, who also took the gymnastics, left 25th March, 1907. The manual instruction is now taught by the schoolmaster, and a visiting drill instructor has been appointed. There has been a change of tailor.

Premises.—The premises are clean throughout. Several improvements are possible on the domestic side. Nightshirts and toothbrushes are in contemplation, and a day shirt of army flannel is worth considering, as is also the substitution of a strong tweed suit for corduroy. The dietary table is under revision.

Standards with awards.—Standard VI, 4, good; Standard V, 13, good; Standard IV, 6, good; Standard III, 11, good; Standard II, 13, very fair; Standard I, 10, very fair: Preparatory, 4, very fair. Progress at the bottom of the school is slow. Making allowance for a broken year the general award is good, but an effort must be made to bring boys on as rapidly as possible.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair. This subject should be taught throughout. Mental arithmetic, very fair generally, good in VI. Recitation, well

rendered, but not always understood. Geography, good. Good object lessons have been given. The development of intelligence is very fair.

Industrial training.—Drawing is good and is likely to continue to be improved in detail. It is anticipated that, with experience, manual instruction will continue to maintain, under the new instructor, the high standard for which this department has long been noted. Shoemaking has been discontinued. Repairs are now sent out. A new tailor has been appointed, and technical instruction in tailoring is to be commenced forthwith. Fruit-growing is being extended. The boys' garden plots look better than ever before. The boys now keep their own account books. The number of plots might well be extended. The arrangements for disposal and after-care might be better organised.

Physical training, &c.—Physical drill is taken daily, and a creditable display was given under the direction of a senior boy, in spite of heavy boots. Cricket and football are encouraged and swimming is taught to all. There have been the usual outings and entertainments, including a day at the seaside.

Health.—The work of the school was seriously interfered with by an outbreak of scarlet fever, which began in September and affected 11 cases. All made good recoveries, though one boy is suffering still from the after effects. Skin disease, too, has been prevalent, and a boy is being specially treated for spinal curvature. Otherwise the health has been good, as indeed is to be expected in so ideally healthy a situation. A dentist has been appointed.

Conduct.—Apart from the case of a boy who was recalled for misconduct on licence, there have been no offences out of the common. At the same time the record contains a large number of entries relating to trivial faults, which it should be possible to deal with under a good mark system.

General remarks.—This is a charming example of a non-institutional school, where, however, a more business-like attention to points of details would secure even greater efficiency.

Cannington.

Visited.—25th and 30th July and 4th October, 1907.

Inmates.—Total number in school, 92; voluntary cases, 0; on licence, 3; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. Shepherd.

Premises.—A new heating apparatus has been placed in the new playroom. For drill the boys are now dressed in blue serge nickers and light shoes.

Standards with awards.—Standard VII, 1, very fair; Standard VI, 4, very fair; Standard V, 11, very fair; Standard IV, 15, good; Standard III, 27, very fair; Standard II, 21, very fair; Standard I, 8, very fair; Preparatory, 5, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, V, VI and VII, very fair. Recitation, very fair. Mental arithmetic, very fair in IV and II; fair only in other standards. Geography, good. Lessons in agriculture had been taken. The development of intelligence is very fair.

Industrial training.—Drawing is fairly good in the three lower standards, but in the higher standards it requires special attention. The present condition of technical instruction in the tailoring and shoemaking shops warrants the belief that much advance will be made in the near future. Five boys do estate carpentry about the premises. Lessons on the theory of agriculture are given in the schoolroom, and it would be good if the gardener could supplement these by lessons bearing directly on the work in the kitchen garden. There are good drum and fife and bugle bands.

Physical training, &c.—The free gymnastics were very well executed. More might still be done in gymnastic exercises. Cricket and football are regularly played, and the new drill hall has a stage at one end for winter evenings.

Health.—There was a sudden death in December from tubercular meningitis. Two boys have been discharged, both suffering from tubercular troubles. In January there was a case of diphtheria, and on the day of examination a boy was in hospital recovering from pneumonia. It is suggested that the committee should satisfy themselves that there is sufficient accommodation for nursing sick boys who cannot be removed, and also that nursing aid can be quickly summoned.

Conduct.—There has been little trouble in this respect. Fighting, stealing fruit, and a few childish misdemeanours are all the offences recorded.

General remarks.—The superintendent broke down in April and went for a holiday. Though much improved in health he had to leave again before the examination and to the regret of all friends of the school finally resigned. The committee were fortunate enough to be able to avail themselves of the services of the former superintendent, Mr. Shepherd, senior, until the end of the year when Mr. G. L. Harding was appointed superintendent.

Staffordshire.

Visited.—4th February, 25th January, and 13th November, 1907.

Inmates.—Total number in school, 125; voluntary cases, 0; on licence, 3; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. B. Horth. There has been a change of band and drill instructor; the post is now held by Mr. A. H. McDermott.

Premises.—Married quarters have been provided for the head schoolmaster. The shoemakers' shop has been equipped with machinery worked by steam.

Standards with awards.—Standard VI, 12, good; Standard V, 25, good; Standard IV, 28, good; Standard III, 24, good;

Standard II, 19, good ; Standard I, 14, good ; Preparatory, 3, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, very fair in IV, good in other standards. Recitation, good. Geography, good. Object lessons, good. Composition, good. The development of intelligence is good.

Industrial training.—Drawing is receiving regular and careful attention, and is likely to become a strong subject under the present head teacher. Some very good "extra" work has been done. Manual instruction is now in good hands, and merits the utmost encouragement. The technical instruction in the tailors' shop is good all through, as is that also in the shoemakers' shop. The following machines have been put down in the shoemaking shop—sole-sewing, fair-stitching, "universal" finishing, "open-ended" cutting press, closing (three), channelling, and skiving and rolling—rendering this the finest equipment at the present time of any school in the country. Half-a-dozen boys are regularly employed about the farm and gardens, and there are numerous small garden plots for cultivation by the boys. There has also been a great improvement in the band, from which six boys have gone to army bands during the year.

Physical training, &c.—Free gymnastics, gymnastic marching, and dumb-bell exercises and applied gymnastics have improved and may now be classed good. Cricket and football are played ; at the former no outside matches, but at the latter one has been played and another is in prospect. The boys have been taken to several entertainments, and have provided entertainments for others. "Empire Day" was fittingly celebrated.

Health.—Mr. Spanton, who for 35 years had been medical officer to the school, resigned at the end of December, 1906. The health of the school for the year has been good. Some influenza in April, single cases of enlarged glands and sunstroke, and a few skin troubles are recorded. One boy was sent to hospital for hip disease, but has returned improved. A boy broke his collar bone while playing football and another sprained his wrist ; both are now well. A dentist visits once a quarter.

Conduct.—A few boys have been corrected for disobedience, insolence, general misconduct, and petty theft. The general conduct has been good. The mark system is well worked.

General remarks.—Improvement is noticeable in all departments on the twelvemonth's work, and that in the equipment of the shoemaking shop, especially shows how earnest is the determination to reach and maintain a high standard of success. One of the boys gained a bronze medal at the "Tailor and Cutters'" Exhibition in October, 1906.

Standon Bridge.

Visited.—26th February, 28th January, and 13th November, 1907.

Inmates.—Total number in school, 90 ; voluntary cases, 68 ; on licence, 2 ; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. J. G. Chester. There has been a change in the posts of farm bailiff and dairywoman. The post of shoemaker has been abolished.

Premises.—There is no change in the buildings to record.

Standards with awards.—Standard VI, 15, good; Standard V, 18, good; Standard IV, 18, good; Standard III, 17, good; Standard II, 10, good; Standard I, 4, good; Preparatory, 5, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good. Recitation, good. Composition, good. A good course of object lessons had been given to the lower standards, and lessons in history and physiology to the upper group. The development of intelligence is good.

Industrial training.—Drawing is receiving very good attention indeed. In manual instruction better finish is required in both drawing and bench work. Technical instruction is being well attended to in the tailoring shop, where the drawings are especially good. Three boys are engaged in shoemaking, but there is no machinery and no regular technical instruction. Six boys are engaged on the farm, and 12 in the market and fruit gardens and greenhouses. The gardens and greenhouses are in good order. The bakery has been closed.

Physical training, &c.—This is greatly improved. The course was well thought out and executed with great vigour. During the twelve months sports have been held, and about 60 boys have learnt to swim.

Health.—The general health has been very good. A couple of boys have suffered from swollen glands, another from whitlow, and another from keratitis. The doctor visits monthly, and examines the boys stripped twice a year. Twice a year, too, a dentist attends to their teeth.

Conduct.—There have been two cases of absconding and three attempts to abscond. One of the offenders was a voluntary case admitted at nearly 16. Other troubles have been stealing and indecency. The list of offences is not long, and the mark system serves, as a rule, to keep up the general discipline.

General remarks.—Certain economies have been effected in the management by abolishing the shoemakers' shop, and buying instead of baking the bread. Other details are under consideration. The good work of the schoolroom deserves special praise.

Walsham-le-Willows.

Visited.—4th and 24th July, 1907.

Inmates.—Total number in school, 38; voluntary cases, 11; on licence, 0; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. John Gill. Mr. E. E. Porter left 16th March, 1907, and was succeeded as schoolmaster by Mr. E. B. Jago (Art. 50) 9th April, 1907.

Premises.—The premises are clean throughout. There have been no structural alterations.

Standards with awards.—Standard VI, 7, very fair; Standard V, 5, very fair; Standard IV, 6, good; Standard III, 11, very fair; Standard II, 6, fair; Standard I, 2, very fair; Preparatory, 1, making progress. The general award is very fair.

Class subjects.—Singing—a little instruction in sol-fa. Composition, very fair. Recitation, good in upper, fair only in lower standards. Mental arithmetic, poor in V, fair in VI and II, good in IV, very fair in III. Geography, good generally, poor in II and I. History readers are in use. The development of intelligence is on very fair lines.

Industrial training.—Drawing may be expected to improve under the present teacher. Manual instruction shows a little improvement. The equipment of tools is insufficient. The gardening department is really first-rate. All the boys get their turn at the work. The boys' own plots are well kept. There is a drum and fife band.

Physical training, &c.—A good beginning has been made with dumb-bell exercises under the direction of the new schoolmaster. Cricket and football are played, and there are occasional outings.

Health.—A case of hip-joint disease, four of mumps, and one of inflamed glands, with two sprained ankles are all that have occurred among the boys this year. A dentist has been appointed.

Conduct.—One boy tried to abscond about three months ago, but seems to have settled down. Apart from a case of ill-treating animals, the offences have been of a minor character. A mark system has been introduced.

General remarks.—The prolonged and serious illness of the superintendent has cast a gloom over what might have been a successful year. The superintendent died soon after the inspection, and his widow, Mrs. Gill, who has deservedly gained the confidence of the committee, is now in charge of the school.

Mayford.

Visited.—24th June and 12th July, 1907.

Inmates.—Total number in school, 181; voluntary cases, 0; on licence, 21; absconders, 0.

Staff.—Superintendent and matron, Mr. J. W. March (t. and c.) and Mrs. March. The lady teacher, Miss Dall, left 10th October, 1906; two supply teachers followed, and were then succeeded by Miss Alice M. West (t. and c.), 19th December, 1906. Mr. Channell left 31st January, 1907, and was succeeded by Mr. J. V. B. Wild (t. and c.) 1st February, 1907. There have also been changes in the posts of laundress, labour master and tailor

Premises.—The coal store has been converted into a playroom for the juniors. The dormitories, workshops, and kitchen have been painted and colour-washed. A new drainage system is shortly to be laid. The laundry work is at present done by contract. New plans have been prepared for a steam laundry. A new hospital has been formed by adding one of the cottages to the reception ward. All parts of the house were scrupulously clean and tidy.

Standards with awards.—Standard VI, 13, good; Standard V, 35, good; Standard IV, 39, good: Standard III. 41, very fair; Standard II, 22, good; Standard I, 18, good; Preparatory, 11, very fair. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V and VI, very fair. Recitation, good. Mental arithmetic, good in II and IV; very fair only in other standards. Geography, good. Good object lessons and elementary science have been taken by all standards. The development of intelligence is good.

Industrial training.—The drawing of Standards I and II is good, in the remainder better finish is needed. The work of Standards IV and V requires special attention. In manual instruction attention should be paid to accuracy of elementary details as they recur in later work. It is hoped that with the appointment of a permanent master tailor, technical instruction in the tailors' shop may be taken up in earnest; it has received some amount of attention in the shoemakers' shop, but might easily be improved on. The most promising departments are those of farm and garden, and with the regular organisation of technical instruction would soon become first-rate. The boys' garden plots (20) are an excellent feature, all the more so that they are of a sensible size (each 18 yards by 12 yards, under two boys). A good greenhouse would be a desirable addition to the garden work, and would form a valuable factor in the boys' training. The band is a particularly good one.

Physical training, &c.—There was a good display of exercises with dumb-bells and Indian clubs, and a fairly large squad vaulted the horse. Though the display was in many respects good, it is not yet as smart and vigorous as may be seen in many schools. Cricket and football are played, and when the bath is in working order it may be hoped that swimming will be a feature of the school. A part of the play field is to be set apart for the juniors. A library has been started and amusements for winter evenings were arranged regularly.

Health.—A boy died in May from meningitis after a short illness. An outbreak of conjunctivitis started in June, 1906, and was not got rid of until the end of October. There were over 50 cases altogether. All were treated in the school. There have also been a few cases of rheumatism, eczema, adenoids, impetigo, boils, and one of hernia. Three boys are suffering from weak hearts, one of them will probably be discharged. One boy, suffering from chronic conjunctivitis, has been brought back from licence and is being looked after. The medical officer now visits regularly once a week. A dentist examines the teeth periodically.

Conduct.—There have been a few cases of pilfering from the orchard, and one or two of leaving the premises without permission.

Two or three cases of disobedience and one of absconding from licence, complete the list, which is a short one. There is a mark system with money rewards, and a good monitorial system.

General remarks.—It has been found necessary to organise a junior department under female care. An extra teacher and special schoolroom equipment have, however, not yet been provided. The boys were looking bright and healthy, and their manners reflected credit on the superintendent and his staff.

Portslade.

Visited.—29th May and 16th July, 1907.

Inmates.—Total number in school, 82*; voluntary cases, 3*; on licence, 7; absconded, 0.

Staff.—Superintendent and matron, Mr. H. J. Glover (t. & c.) and Mrs. Glover. Mr. R. P. Perkins was appointed general assistant 23rd July, 1906, and Mr. L. V. Biggs joined as clerk 19th June, 1906. There is a change of domestic.

Premises.—There have been no structural alterations. The premises were clean, and for the most part in good order.

Standards with awards.—Standard VI, 19, good; Standard V, 17, good; Standard IV, 21, good; Standard III, 14, good; Standard II, 4, good,; Standard I, 3, good. The general award is good. Very few boys have been admitted this year, but the proportion in the upper standards is nevertheless creditable.

Class subjects.—Singing—old notation (taken by the superintendent), exceptionally good. Composition, good. Recitation, good. Geography, good. Mental arithmetic, good throughout. Good object lesson have been given, and history readers have been in intelligent use. Intelligence is well developed.

Industrial training.—Drawing has received steady attention; but still greater neatness and finish are needed. Manual instruction is thoroughly good; the instructor might now be encouraged to strike out into bolder work with his leading boys. Technical instruction is likely to advance in the tailoring shop. In few schools can the boys give a better account of themselves than in the shoemakers' shop here. Organised steps should be taken towards giving the farm and garden boys a more intelligent appreciation of their work. The band, apart from a tendency to overblow, is good. A former band boy won the Kneller Hall prize for harmony and counterpoint this year. Disposal is well managed.

Physical training, &c.—A brilliant display of free gymnastics was given by practically the whole school under the schoolmaster's direction. In applied work a large squad showed up well, though style is not faultless. Cricket, football, and swimming receive every encouragement, and there have been various treats and outings.

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* Three over 16 awaiting emigration.

Health.—The health is carefully looked after, and there have been no ailments more serious than a few eye and skin affections. One boy is epileptic, and others are defective in sight, but, where possible, are fitted with spectacles. The dentist visits every six weeks.

Conduct.—Two boys attempted to abscond, and one of them who had been unsatisfactory otherwise, was sent to a reformatory. Two others are reported as being out of bounds, and there have been some cases of pilfering, falsehood, and insolence. The mark system continues to work well.

General remarks.—The remarks made last year still apply. The school suffers from its institutional character, and sorely needs a good outside friend or two who would take a sympathetic interest in its good work.

Shustoke.

Visited.—9th April, 28th February, and 9th January, 1907.

Inmates.—Total number in school, 142; voluntary cases 0; on licence, 9; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. Craven Jones. There have been changes in the posts of farm foreman and general assistant.

Premises.—A new water tower, to hold 12,000 gallons, has been built. Other improvements have been a new block floor in the dining hall and a complete set of tables (made in the carpenters' shop), new roof and fixtures in the kitchen, new spring bedsteads, cloth suits and light boots supplied for Sunday wear. A gymnasium is a real want in this school.

Standards with awards.—Standard VI, 12, good; Standard V, 19, good; Standard IV, 21, good; Standard III, 35, good; Standard II, 32, good; Standard I, 23, good. Reading in the upper standards is weak. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good. Mental arithmetic, good. Geography, good. Elementary science, good. The development of intelligence is good.

Industrial training.—The drawing results are distinctly encouraging. Manual instruction shows solid improvement, and a good deal of useful work in carpentry and joinery has been done about the premises. Technical instruction is receiving considerable attention in the tailoring and shoemaking shops, and well-defined schemes of lessons have now been prepared. The same remark applies also to the training of the bakers. Twelve boys are engaged at general farm work, and two in the gardens. Three of the farm boys are milkers, as regards whom special attention should be paid to cleanliness. There is a fairly good brass band, which would be much improved by reed instruments. The supervision of boys who have left is careful.

Physical training, &c.—The exercises with Indian clubs, wands and dumb-bells are good, and there is improvement in the

marching. Gymnastic marching requires special attention, and the introduction of applied work (*i.e.*, the vaulting horse and parallel bars) is to be desired. The school holds the Cricket Challenge Cup for the Midland District, and the Quarter-mile Cup, together with other prizes, and among others 10 for swimming. For the latter the boys were taken to Birmingham and trained.

Health.—The general health has been good, but in February there was an epidemic of influenza, from which, however, no ill-effects followed. There have been some skin troubles from time to time. Two boys were operated on in hospital for periostitis, one of whom has his leg still in bandages, Another boy underwent an operation for aural polypus, and one for varicose veins. A nurse has been added to the staff. The boys' teeth are under regular supervision of a dentist.

Conduct.—Three boys, two of whom were new, absconded in March, but were soon brought back. A good number of boys have had to be corrected for disobedience, impudence, laziness, disorder, &c. The mark system is regularly worked.

General remarks.—There has been a steady increase in the numbers this year. It may be confidently expected that as the methods and aims of the school become more widely known there will be less reluctance to give boys the training which it affords.

Tranent.

Visited.—25th April, 20th March and 22nd October, 1907.

Inmates.—Total number in school, 198* ; voluntary cases, 6 ; on licence, 11 ; absconders, 1.

Staff.—Mr., Mrs., Mr. W. and the Misses McGee left 26th January, 1906, and were succeeded by Mr. Murray and the Misses Murray as superintendent and matrons. They left on 30th November, 1906, and were succeeded by Mr. and Mrs. John McDonald on 1st December, 1906. Mr. McGettigen, assistant teacher, left 30th March, 1907, and Mr. Alastair McDonald was appointed to the post. There have been changes in the posts of yardsman, gardener, and laundry woman.

Premises.—There has been no change in the premises. Part of the interior has been painted. The clothes are in a poor state, but every effort is being made to improve their condition.

Standards with awards.—Standard V, 34, good ; Standard IV, 25, very fair ; Standard III, 35, very fair ; Standard II, 51, very fair ; Standard I, 40, poor ; Preparatory, 12, poor. The general award is fair. An additional assistant is needed.

Class subjects.—Composition, good. Recitation, very fair in lower, good in higher standards. Mental arithmetic, good in V, fair in III and IV, very fair in the lower standards. Geography, very fair generally. Object lessons have been given to II, I, and Preparatory. The development of intelligence is very fair. Singing was in abeyance.

* Including one in hospital.

Industrial training.—Drawing is only fair. Better school room management would secure better results. Manual instruction, under the new instructor, is promising. The boys in the upholstery class are very keen on points about their work, but greater intelligence should be brought to bear on the giving of technical instruction in the tailors' shop. About two dozen boys are engaged in market gardening. There is an excellent pipe band.

Physical training, &c.—There are two squads, numbering 90 in all, who take free gymnastics, and a squad of 30 boys who do the applied work. The smartness and vigour with which the boys went through their course did the instructor much credit. The football field is well used, and some outside fixtures are being arranged.

Health.—There have been three deaths since August; one from meningitis, one from phthisis, and one a sudden death in January. There have been several cases of pneumonia and bronchitis. Some 20 cases of conjunctivitis are reported. 17 cases of ringworm were also under treatment, but these latter have been reduced to six. A case of appendicitis made a good recovery and so did two boys with rheumatism. The medical officer is constant in his attentions. He visits every week and holds a stripped examination every quarter.

Conduct.—The boys got completely out of control when Mr. McGee left, and there has been continual absconding all through the year. It was necessary to send two to reformatories. The unrest in the school was fomented by old boys coming to the school and staying for "week ends." The present superintendent has got the boys in far better order, and it may be confidently expected that they will now settle down.

General remarks.—The school has been through a very anxious year for all concerned. The remarks on the health and conduct are sufficient to indicate this. The schoolroom has suffered in consequence. The new superintendent has, however, done much to bring about a different state of things, and he is supported in his endeavours by the committee.

INDUSTRIAL SCHOOLS.—Boys. Town and Suburban.

Chester.

Visited.—18th March and 16th January, 1907.

Inmates.—Total number in school, 69; voluntary case, 1; on licence, 1; absconders, 4.

Staff.—Superintendent and matron, Mr. and Mrs. E. H. Thomas. The schoolmaster, Mr. J. Chadwick (c.), left 21st December, 1906, and was succeeded by Mr. J. H. Aedy (ex p.-t.), 1st January, 1907. Mr. W. Hargreaves (Art. 68), left 20th November, 1906, and was replaced by Mr. E. Coomber (Art. 68), 21st November, 1906.

Premises.—There has been no change in the premises.

Standards with awards.—Standard VI, 6, good; Standard V, 12, very fair; Standard IV, 11, very fair; Standard III, 20, fair; Standard II, 9, very fair; Standard I, 5, very fair; Preparatory, 6, making progress. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, good. Mental arithmetic, good in VI; very fair in V and III; fair only in IV. Geography, very fair in IV and III; good in VI and V. Recitation, good. Good object lessons have been given. Intelligence s being developed on good lines.

Industrial training.—Drawing is very good in the two lower standards, and the freehand of all the other standards is good; otherwise the subject is only moderate, but an improvement may be anticipated under the present teachers. Manual instruction has suffered from the lapses of the last year or two, and will take time to recover. The technical instruction in the tailors' and shoemakers' shops is fairly good, and could easily be extended and systematised. Gardening is probably the most thorough industry in which the school engages.

Physical training, &c.—A really good display of free exercises, dumb-bell drill, and gymnastic marching was given by the whole school. Football is played, but the facilities for cricket are restricted. Practically all the boys can swim. The annual camp at Gronant, near Prestatyn, was an enjoyable feature of the year.

Health.—The most serious case during the year was one of pneumonia, which made a good recovery. Recently there has been an outbreak of influenza. Some eye diseases complete the list.

Conduct.—The chief trouble has been due to absconding. Of 11 boys who ran away at various times four are still at large. There have been several cases of stealing and of dishonesty, and some boys are reported as generally troublesome. This is a fairly long list for so small a school, but the tone seems to have improved of late.

General remarks.—The school has its good points, but should not be allowed to settle down in a groove. The record in the previous paragraph points to slackness in the management.

Birkenhead.

Visited.—27th and 11th February, 1907.

Inmates.—Total number in school, 82; voluntary cases, 4; on licence, 0; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. T. Paterson. There have been no changes in the staff since last report.

Premises.—The joiners' shop has been enlarged and fitted up for manual instruction. Otherwise there have been no alterations in the premises.

Standards with awards.—Standard VI, 8, very fair; Standard V, 14, very fair; Standard IV, 11, very fair; Standard III, 10, good; Standard II, 9, good; Standard I, 22, fair;

Preparatory. 8, new-comers, Generally the work is well organised and more promising than for some time past. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition in V and VI, very fair. Recitation, very fair Mental arithmetic, very fair in upper standards, good in others. Geography, good generally, showing improvement. History readers have been in occasional use. Useful objects have been given.

Industrial training.—Drawing is at present very fair, neatness and finish would raise it to the good standard. Solid geometry should be taken in Standard VI. Manual instruction has been transferred from an outside centre to the school itself; a good start has been made, and the future of this subject looks promising. Technical instruction in the tailoring has suffered through shortage of boys. This, however, can be met by a slight adjustment of the arrangements. The technical instruction in the shoemaking shop has been somewhat more ample, and in both shops is likely to receive increased attention in the future.

Physical training, &c.—The whole school is taken at free exercises and over the vaulting horse with very fair results. A few elementary exercises are done on the parallel bars and horizontal bar by the bigger boys. The Corporation baths are attended for swimming, and 19 boys have gained certificates for swimming a quarter of a mile.

Health.—The general health has been good. One boy has been lately troubled with rheumatism, and a few have had sore eyes. A case of appendicitis made a good recovery. Beyond some coughs and colds and other slight ailments there appears to have been nothing to record.

Conduct.—There has not been much to complain of in the way of conduct during the year. Occasionally a boy has had to be corrected for impudence, neglect of work or pilfering, but the general tone is undoubtedly good, and a well-considered mark system is working satisfactorily.

General remarks.—With an earnest committee and a capable staff this school only needs a good supply of suitable cases to show what can be done in the direction of giving a real chance in life to those who most need it.

Stockport.

Visited.—2nd February and 22nd January, 1907.

Inmates.—Total number in school, 89; voluntary cases, 3; on licence, 8; absconders, 0.

Staff.—Superintendent and matron, Mr. W. C. Bancroft (t. & c.), and Mrs. Bancroft. There have been changes in the posts of shoemaker and housemaid.

Premises.—No change in the buildings. The interior decorations are now complete.

Standards with awards.—Standard VI, 12, good; Standard V, 10, good; Standard IV, 19, good; Standard III, 19, good;

Standard II, 13, good; Standard I, 9, good; Preparatory 7, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good. Recitation, very fair. Geography, good. Composition, good. Object lessons, good. The development of intelligence is good.

Industrial training.—The school must be complimented upon the quality of its drawing. A manual instruction department has been commenced during the year, conducted by the superintendent. Technical instruction in the tailors' shop has received due attention, and may easily be still further improved by systematising. There has been a break in this respect in the shoemakers' shop, owing to change of instructor. It is anticipated that the new instructor will soon grasp the essentials of the technical aspect of his work.

Physical training, &c.—The gymnastics are fairly good. There is no apparatus for applied work. The school is in the Association for football and cricket. The Mayor of Stockport gave his annual dinner to the two schools; and a trip to Alderley Edge was enjoyed in the summer.

Health.—There was a death in February, 1906, from tubercular disease of the lungs following on pneumonia. A bad case of influenza at the same time made a good recovery. There has been no other serious illness, but cases of rheumatism, chorea, five cases of measles (in December), ringworm, and eczema have been successfully treated. A case of ulcer of cornea requires constant attention.

Conduct.—A boy absconded in January, but returned next day. Boys have been corrected for smoking, bullying, and other more trifling faults. The general conduct is good. There is no mark system.

General remarks.—The numbers have fallen by 10, even since last year. The matter deserves the earnest attention of the committee, as in other respects the school was never in a more promising condition than at present.

Macclesfield.

Visited.—5th February and 23rd January, 1907.

Inmates.—Total number in school, 115; voluntary cases, 0; on licence, 8; absconders, 0.

Staff.—Superintendent and matron, Mr. R. W. Hind (c.) and Mrs. Hind. Mr. J. A. Littlewood left 8th December, 1906, and Mr. J. B. Burden on November 10th, 1906. One assistant teacher has succeeded them, viz., Mr. E. A. Pearson (c.) There have been changes in the posts of tailor, cook, and nurse.

Premises.—An extra door has been made in the shoemakers' shop, and two windows put in for supervision.

Standards with awards.—Standard VI, 5, very fair; Standard V, 20, very fair; Standard IV, 28, good; Standard III, 27,

good; Standard II, 22, very fair; Standard I, 8, very fair; Preparatory, 2, new-comers. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good in III and IV; very fair in other standards. Geography, very fair generally; in V and VI, good. Recitation, very fair. Composition, very fair. Object lessons have been given throughout. The development of intelligence is very fair.

Industrial training.—Drawing requires a little better finish. Some very good extra work (varied) has been done. Manual instruction is fair. The new instructor will require time to gain experience. Better attention to technical instruction is required in the tailoring shop; the shoemaking shop is more satisfactory in this respect, and if carefully systematised is likely to be even better in the future. The boys in the brushmaking shop are keen on knowing all about their subject, and have an equally keen instructor.

Physical training, &c.—Free gymnastics, dumb-bell exercises, and the applied gymnastics are good. The school belongs to the North of England Industrial Schools Athletic Association, and in 1906 football stood third. Five or six outside cricket matches were played. 100 yds. Cup was won at the sports. Evening classes, lantern, and ambulance lectures pass the winter evenings. Fire drills form a feature of the school.

Health.—The health has been remarkably good. There have been two cases of pneumonia, one in March the other in July; both made good recoveries. A boy fractured his shoulder at football. The school continues to go into camp in the summer, and the health of the boys is thereby much improved.

Conduct.—There have been two cases of absconding and two of petty theft. These and the usual school-room offences of laziness and inattention are the only items of importance. The mark system is worked throughout.

General remarks.—The schoolroom has suffered from change of staff, and with two teachers only the time-table has had to be re-adjusted. It is to be hoped that this useful school will not long continue to lanquish for want of suitable cases, as it is one of the last schools to deserve such a fate.

Bishop Brown.

Visited.—14th February and 22nd January, 1907.

Inmates.—Total number in school, 98; voluntary cases, 1; on licence, 29*; absconders, 0.

Staff.—The school is in charge of Sister Angela (Miss Julia O'Dea) (t. & c.), and seven sisters of the Order of the Immaculate Conception. There has been no change in the staff, but the tailor left soon after the inspection.

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* Including 26 in the home.

Premises.—There have been no changes in the building. The playground has been "flagged," and the ground between that and the schoolroom asphalted. The school, dormitories, hall, and stairs have been painted. The lease of the play field, about a mile from the school, has been renewed.

Standards with awards.—Standard VI, 10, good; Standard V, 16, good; Standard IV, 22, good; Standard III, 23, good; Standard II, 19, good; Standard I. 18, good; Preparatory, 6, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Mental arithmetic, good. Recitation, good. Geography, very fair, too mechanical. Composition, good. Object lessons, good.

Industrial training.—Too high praise can hardly be given in respect of the thoroughness and consequent success of the drawing in this school. The establishment of a manual instruction department has been well justified. The work in the little plumbing shop might now be systematised. Technical instruction in the shoemakers' shop gives excellent promise for the future. The instruction in the tailors' shop might well receive better attention. Cutting-out, machining, and button-holing receive special attention in the shirtmaking-room, and have proved to be good steps towards tailoring. A visiting teacher (with diploma) has been giving lessons in cookery to a large class.

Physical training, &c.—Free gymnastics and gymnastic marching are on good lines, and the exercises are carried out with vigour. Football is regularly played with outside teams. This year the boys were not successful in the swimming competition; but there are still good swimmers in the school.

Health.—The general health has been good. In March, and again at the end of the year 1906, some feverish colds are reported, and in July three cases of rheumatism. On the day of examination a boy was in bed with chorea, and another with hip-joint disease. Another little fellow, recently admitted with bronchitis, was in the sick-room. A fractured arm made a good recovery. The boys derived much good from the annual visit to the camp in August.

Conduct.—There have been five cases of absconding during the last twelve months, and boys have had to be corrected for staying out without leave, disobedience, &c. Most trouble is caused by fighting and smoking.

General remarks.—The care of the boys while in the school deserves all praise. The committee will do well to direct their earnest attention to the means of disposing of the boys on leaving the school.

Cumberland.

Visited.—25th March and 15th February, 1907.

Inmates.—Total number in school, 125; voluntary cases, 0; on licence, 4; absconders, 0.

Staff.—Superintendent and matron, Mr. C. T. Howes (t. & c.), and Mrs. Howes. Mr. J. T. Bell (t. & c.), assistant teacher, left 5th

March, 1907. Mr. R. O. Waite will succeed him shortly. There have been changes of gardener, cook and laundress.

Premises.—The premises were in an admirable state of cleanliness and order throughout. The general domestic arrangements are probably not excelled in any school of the kind.

Standards with awards.—Standard VI, 22, good; Standard V, 24, good; Standard IV, 28, good; Standard III, 27, very fair; Standard II, 10, good; Standard I, 8, good; Preparatory, 5, new-comers. The general award is good, but writing is below the mark, and reading is inclined to be jerky.

Class subjects.—Singing—sol-fa, good. The introduction of staff notation is recommended. Composition, good. Mental arithmetic good in VI, V, IV, fair in III, very fair in II and I. Recitation, good. Geography, good generally, very fair in IV and III. Useful object lessons have been given to the juniors, and history readers have been in use. Intelligence is being developed on good lines.

Industrial training.—Drawing is good in some Standards, but not quite so good in others. This would soon be remedied by more alert discipline. Manual instruction continues to advance, but the special drawing might be neater. Technical instruction in the tailors' shop is very fair, while that in the shoemaking shop is above the average of schools; it is one of the cases where a definite scheme is followed. Technical instruction might be introduced in the bakery. The boys who form the class are enthusiastic about their machinery lessons. The band is distinctly good, and is much in demand for outside engagements. Boys go on leaving principally to farm service or the army. The arrangements for after supervision appear to be satisfactory.

Physical training, &c.—A smart display of free gymnastics was given. These are taken daily, and special attention is given to breathing exercises. Some capital applied work was shown on the horse and the horizontal and parallel bars. The school has done well at both cricket and football. The boys have had various treats and outings.

Health.—A boy died in February from acute nephritis. There have been four cases of scarlet fever, of which one is still in hospital. A case of pneumonia gave some anxiety last spring, but eventually recovered. Other cases were two of tonsilitis, one of rheumatic fever, and a few of influenza. The doctor visits as required, and holds an occasional stripped examination. The teeth are attended to by a dentist.

Conduct.—For the last three years there has been no entry in the list of major offences. Minor faults, such as pilfering, idleness, destroying property, disobedience, and so forth, are not unduly numerous, but it should be possible to reduce the number of schoolroom entries by an extended use of the mark system.

General remarks.—The school has earned a thoroughly good report. It is to be hoped that its fine work will not be hampered by lowness of numbers.

Devon and Exeter.

Visited.—9th and 31st July, 1907.

Inmates.—Total number in school, 71; voluntary cases, 2; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. Heppell. Miss Heppell has been appointed assistant matron. The staff is in other respects the same as last year.

Premises.—Extra provision has been made for escape in case of fire. The premises are clean in every part. There have been no structural alterations.

Standards with awards.—Standard VI, 12, very fair; Standard V, 11, good; Standard IV, 12, very fair; Standard III, 11, very fair; Standard II, 11, fair; Standard I, 7, good; Preparatory, 7, making some progress. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, in VI and V, fair; this subject should be taught throughout. Mental arithmetic, very fair generally, good in V, fair in II. Geography, very fair in VI and V, fair otherwise. Recitation, very fair. Science readers have been in use, and some object lessons based upon them have been given. Intelligence is very fair.

Industrial training.—In drawing decision and finish are required, particularly in the mechanical work. The scale-drawing, generally, requires special attention. The proper work for Standard VI should be taken in the future. No school is more enterprising in its application of the boys' carpentry and joinery, for the bulk of the village jobbing is done in the school—an extremely valuable experience for the boys. In the manual instruction section special attention should be paid to the correct reading of a drawing, and in the bench work to accuracy in elementary details. Attention has been paid to technical instruction in the shoemakers' shop, and is likely to improve. Perhaps it may be possible for the visiting tailor to give similar instruction in his department. The market garden boys are in the way of receiving a thoroughly sound practical training.

Physical training, &c.—Drill is taken daily by the schoolmasters, and the exercises are good so far as they go. Cricket and football are encouraged, and during the fortnight's camp a number of the boys learn to swim. There is a library, and various toys and games are provided for winter evenings.

Health.—The doctor visits quarterly for the purpose of a detailed inspection. Beyond this his services have scarcely been required during the past 12 months. The health has been excellent. The teeth are attended to, in special cases, at the Dental Hospital.

Conduct.—A few boys have given trouble in small ways, but there have been no serious offences. The mark system is found sufficient, as a rule, to regulate any trouble that may arise.

General remarks.—The schoolroom work is disappointing, and an effort must be made to bring it up to a good level. In other respects the work of the school proceeds quietly and well.

Sunderland.

Visited.—19th and 13th March and 28th August, 1907.

Inmates.—Total number in school, 100; voluntary cases, 0; on licence, 7; absconders, 0.

Staff.—Superintendent and matron, Mr. W. M. Cryle, M.A. (c.), and Mrs. Cryle. Mr. Wiseman left 23rd June, 1906, and was succeeded as head teacher by Mr. John B. J. Harrison (c.). There have been changes in the posts of shoemaker and mechanic.

Premises.—New workshops (shoemakers', tailors', bandroom, and wardrobe) have been built facing Silver Street. The old shops have been converted into a playroom and gymnasium. The schoolroom has been painted.

Standards with awards.—Standard VI, 10, very fair; Standard V, 17, very fair; Standard IV, 16, very fair; Standard III, 21, very fair; Standard II, 13, very fair; Standard I, 13, very fair; Preparatory, 10, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, fair. Composition in V and VI very fair. Recitation, fair only. Mental arithmetic, good in VI and IV, very fair only in other standards. Geography, very fair. History, very fair. Object lessons had been given to the lower standards. The development of intelligence is very fair.

Industrial training.—Drawing is generally very fair. The drawing books are dirty. If the boys were cleaner the books would be cleaner and the drawing have a better chance. The woodwork instruction is sound as far as it goes, but should go farther. Better finish is required. Technical instruction in the tailoring and shoemaking shops is likely to be made really good; it would be advanced by the use of clearly arranged schemes of lessons. There is a very fair band. A few old boys have gone into militia bands.

Physical training, &c.—The marching and free gymnastics are very fair.

Health.—There has been no death nor any boy discharged as unfit for the training. A boy had a polypus removed from his ear and another a tumour from his face. Another had a piece of grit removed from the eye. There have been four accidents arising from football. All recovered. A lad lost two fingers of the left hand at the saw, putting his hand suddenly on the saw in a moment of thoughtlessness. There were one or two sore eyes on the day of inspection.

Conduct.—A new boy has absconded twice, but there has not been any serious trouble beyond cheating at lessons, dirty habits, and destroying school property. The mark system, with its money awards, and a kindly influence keep a good tone in the school.

General remarks.—The schoolroom work was a little disappointing, but with steady work and a due amount of support the new teacher may be expected to produce satisfactory results during the current year. The new workshops are bright, airy, and comfortably warmed. This side of the school is already transformed, and the committee have further extensive plans in immediate prospect. It is gratifying to find that the Corporation are disposed to recognise the utility of this well-deserving school.

Green's Home. (For Junior Boys.)

Visited.—22nd and 11th March and 18th December, 1907.

Inmates.—Total number in school, 60; voluntary cases, 33*; on licence, 0; absconders, 0.

Staff.—Deputy-superintendent and matron, Mr. and Mrs. Adam Shearlaw. There has been no change in the staff.

Premises.—A new lavatory, bath-room, &c., has been put in for the deputy-snperintendent. The school has been painted inside and out.

Standards with awards.—Standard IV, 3, good; Standard III, 3, good; Standard II. 14, good; Standard I, 26, good; Preparatory, 8, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Recitation is now almost good. Mental arithmetic, good generally, very fair in III. Geography, good. Object lessons, good. The development of intelligence is good.

Industrial training.—Drawing is generally very fair, but the books are somewhat rough. Better finish is required throughout. The technical instruction in the tailoring shop gives good promise, but would be much advanced by a definite sheme of elementary lessons.

Physical training, &c.—There is an improvement in the gymnastic marching, but the free gymnastics should be taken out of doors. The boys play football or cricket on the beach twice a week. About 20 boys learn to swim in the summer time. During the year the boys have been taken to a number of entertainments.

Health.—There was a case of scarlet fever in August, which made a good recovery. Two accidents resulted in a broken leg and fractured arm, but both mended well. Another lad was successfully operated on for hernia.

Conduct.—The conduct has given but little trouble. Two boys overstayed their leave, but it was not entirely their fault. Other offences have been laziness, dirty habits, and pilfering food.

General remarks.—These little fellows did well at their examination. With so many young children it becomes a question whether more motherly attention is not needed.

Abbot Memorial, Gateshead.

Visited.—27th February, 14th March and 18th December, 1907.

Inmates.—Total number in school, 120; voluntary cases, 0; on licence. 0; absconders, 0.

Staff.—Superintendent, Mr. C. G. Nichols; matron, Mrs. L. E. Nichols. There have been changes of tailor, shoemaker, second sawmill officer, cook, and laundress.

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* Poor Law cases.

Premises.—There have been no alterations in the premises, which were thoroughly clean throughout.

Standards with awards.—Standard VI, 5, fairly good; Standard V, 15, fairly good; Standard IV, 19, good; Standard III, 20, good; Standard II, 31, good; Standard I, 20, good; Preparatory, 8, progressing. The general award is good, though reading should be clearer and more expressive.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, fair in III and IV, good in II, very fair elsewhere. Recitation, good throughout, but a little extra attention should be paid to the meanings of words and phrases. Composition, in V and VI, good. Geography, very fair in the lower half, good in the upper. Object, history and grammar lessons have been given to the whole school.

Industrial training.—Drawing is receiving first-rate attention; the head teacher must be complimented both on the year's work and the examination results. Manual instruction is very disappointing. The grant is recommended with hesitation. Technical instruction is in abeyance, but it is hoped that the new tailor and shoemaker will establish it on the lines of a well-defined scheme of lessons. Horticultural instruction might also be given to the garden boys. There is an excellent cookery class of 10 boys; the boys' books of recipes and notes are well kept

Physical training, &c.—The visiting-instructor of physical training has recently resigned, and the head schoolmaster has taken the work in hand. This will probably prove to the advantage of the school. The juniors, trained by the matron, gave a good display of elementary dumb-bell exercises. Half the boys attend public swimming baths once a fortnight. The football record for the season is nine wins out of 12 matches against outside clubs, and in cricket five wins out of seven.

Health.—A boy died in August, 1906, from urania and convulsions. A case of hæmorrhoids was treated in the Newcastle Infirmary, and two tubercular cases are at present in the infirmary. The record of ailments is happily short.

Conduct.—There ars 13 entries of "leaving premises," but it is not quite clear whether the boys concerned were deliberate absconders or merely wanderers. Two boys threatened to abscond. There are also a few entries, each of pilfering, smoking, lying, uncleanly habits and impertinence. One case of stealing is recorded, and a few of indecent language and conduct.

General remarks.—A great deal of sound work has been done in the schoolroom, upon which the teachers are to be congratulated. Special attention may now be given to the industrial training.

Essex.

Visited.—6th and 25th July, 1907.

Inmates.—Total number in school, 142: voluntary cases, on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. C. W. Hayward. The schoolmaster, Mr. J. R. Beeby, left 25th September, 1906. Mr. W. A. Stannard (ex p.t.) was promoted to succeed him. Mr. R. Stuart (t. and c., Irish) was appointed 1st assistant 13th October, 1906. The 2nd assistant master, Mr. J. T. Laxton (t. and c.), left 25th October, and was succeeded by Mr. W. C. Hughes (t. and c.), 7th March, 1907. Mr. A. J. Smith (t. and c.) was here from November 20th, 1906, to December 28th, 1906, and Mr. W. C. L. Jarvis (t. and c.) from December 28th, 1906, to February 3rd, 1907. There has been a change of assistant matron. A drill instuctor has been added to the staff.

Premises.—The school has been connected with the town water supply. All parts of the premises were clean and in order.

Standards with awards.—Standard VI, 19, very fair; Standard V, 26, very fair; Standard IV, 29, very fair; Standard III, 28, fair; Standard II, 13, fair; Standard I, 18, good; Preparatory, 9, backward. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, on good lines, but should be taught throughout. Recitation, good generally, very fair in IV and III. Mental arithmetic, fair. Geography, good in VI and V, very fair in IV, fair in III. History readers might be introduced. Object lessons have been given to the juniors. The development of intelligence is very fair.

Industrial training.—Drawing is not up to the standard of former years. This is a matter which the head schoolmaster should attend to without delay. Manual instruction is very fair. Special attention to accuracy in elementary details is required. Some good higher work has been done. Technical instruction in tailoring and shoemaking is receiving attention, while the gardening boys are gaining a valuable experience; their common sense in the work is evidently being cultivated. All these departments would gain by schemes of lessons in the theory arranged beforehand. The boys' garden plots are in good order. The band is efficient, though not in the first flight.

Physical training, &c.—The appointment of a special instructor has been fairly successful in improving this side of the training. The whole of the boys are taken regularly in free and applied gymnastics. Cricket, football, and other games are played, and swimming is taught. There have been various concerts and entertainments, and as a reward for good conduct a number of boys were taken to Millbeach for a week.

Health.—Health has again given rise to considerable anxiety. Scarlet fever broke out in September, 11 boys being infected; while in April there were 15 cases of mumps. There has been a great deal of throat trouble during the year, including 16 cases of tonsilitis and 33 of sore throat. Other ailments noted are three each of itch, otorrhœa, and influenza, with occasional cases of conjunctivitis, abscess, swollen glands, and rheumatism. One boy has had syncopal attacks.

Conduct.—There is a fairly long list of offences, and one or two boys appear to have given considerable trouble. Attempts to abscond, stealing from boys' boxes, pilfering food, neglect of duty or work, insubordination, dirty habits—these are among the faults

recorded. The cells have been called into use on six occasions. There is a mark system, carrying money rewards.

General remarks.—The year has been one of the least successful in the history of the school owing to numerous changes in the staff and to outbreaks of sickness.

St. Nicholas', Ilford.

Visited.—25th and 26th June, 11th July, 14th January, and 1st February, 1907.

Inmates.—Total number in school, 199* ; voluntary cases, 0 ; on licence, 51† ; absconders, 0.

Staff.—Superintendent and matron, Mr. J. Jackson (c.) and Mrs. Jackson. The only change in the staff has been that of the night watchman.

Premises.—There have been no structural alterations beyond putting up a stage, &c. in the recreation room for entertainments, and the rearrangement of the classrooms, which are much improved thereby.

Standards with awards.—Standard VI, 16, good ; Standard V, 19, good ; Standard IV, 40, good ; Standard III, 39, good ; Standard II, 33, good ; Standard I, 13, good ; Preparatory, 17, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good generally. Composition, fairly good. Recitation, good. Mental arithmetic, good. Geography, good. History readers have been in use, and good object lessons have been given to the juniors.

Industrial training.—Drawing shows great improvement in the three lower standards, extra neatness and finish would assist the work of the higher standards. About 60 boys are receiving manual instruction. Technical instruction is receiving attention in the tailoring shop. The knitting and shirtmaking room is a busy place, and wisely made preliminary to tailoring. The shoemaking shop is one of the most workmanlike to be found anywhere, and in no shop are the boys more keen, whether on theory or practice. There are three bakers. The kitchen and ornamental gardens employ 16 boys. The band is being well instructed, but needs some new instruments.

Physical training, &c.—In this department the school continues to advance. The free and applied gymnastics, besides exercises with clubs and dumb-bells, show a marked improvement compared with two or three years back, and are now really good. Football, cricket and swimming, besides running, &c., are well encouraged, and careful training is now being given at a miniature rifle range which has been provided. Concerts and other entertainments have been given by the boys.

Health.—There have been three deaths in the year, one from bronchitis hastened by aneurism, another from heart disease, and

* Including 5 recalled under 1894 Act.
† Including 8 in the Home.

the third from striking his head when diving in the bath. One boy was removed to an epileptic home. There have been three or four cases of pneumonia, but all made good recoveries. In the winter there were 40 cases of mild influenza, and there have been several of conjunctivitis. Other cases treated with success include one of diphtheria, four of tonsilitis, and one of rheumatism. The doctor attends twice a week; there is a good detached infirmary, and the teeth are well attended to by a dentist who visits monthly.

Conduct.—The general tone of the school is evidently sound. The only serious case recorded is that of a boy who broke open a poor-box. Occasionally, bullying and ordinary boyish offences call for correction, but the list generally is a short one. A slight fire occurred at the school during the absence of the superintendent, and the admirable discipline displayed by the boys on that occasion was the subject of favourable comment.

General remarks.—The school has now advanced to the front rank, and in all departments, especially that of disposal, shows to great advantage. The opening of an Auxiliary Home close by has proved a valuable help.

Swansea.

Visited.—7th May and 3rd July, 1907.

Inmates.—Total number in school, 65; voluntary cases, 0: on licence, 26; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. S. J. Edwards. There has been a change in the post of kitchen maid.

Premises.—New steam cooking apparatus has been placed in the kitchen, and a sitting-room has been made for the servants. Otherwise there has been no alteration in the premises.

Standards with awards.—Standard VI, 4, very fair; Standard V, 11, very fair; Standard IV, 16, good; Standard III, 20, good; Standard II, 9, very fair; Preparatory, 5, new-comers. The general award is very fair.

Class subjects.—Singing—sol-far. Composition in V and VI, fair. Recitation, very fair. Mental arithmetic, good in IV and VI, very fair in other standards. Geography, very fair. Object lessons had been given to the lower standards. The development of intelligence is very fair.

Industrial training.—Drawing is fairly good in Standard V, greater decision would be an advantage in all the other standards. In manual instruction special attention requires to be paid to correct methods in handling the tools, and to accuracy in elementary details as they recur in later work. A definite scheme of lessons would assist the technical instruction in the tailors' shop. About a score of boys assist in the work of the kitchen garden. A brass band has just been started under a visiting instructor, and will replace the drum and fife band.

Physical training, &c.—The physical training is good, as regards both the free and the applied work. All the school go

through the course, and the boys are well set up. Twenty-four football matches have been played with the Swansea Schools League, and the school now shares the honours as head of the league. Two boys have played in inter-town matches. Six boys obtained the Junior Certificate of the St. John Ambulance Association. A fortnight was spent in camp at West Cross.

Health.—There were two serious cases of pneumonia and pleurisy in April, 1906. A trained nurse was kept in the house, and she and Mrs. Edwards together nursed them to recovery. One of these boys suffered for a time from thrombosis. The health in other respects has been good until April, 1907, when several boys had influenza, fortunately with no subsequent ill effect. There is a boy in school who has constant trouble with his eyes. Sore throat, itch, and disease of the eyes have also been treated.

Conduct.—Three boys broke open the schoolmaster's drawer and stole some money, and another lad stole some picture post cards from a shop. These are the most serious cases of the year. A case of absconding is noted, and other minor offences. There is a mark system which appears to work well. The boys are pleasant and attractive in manner.

General remarks.—The school seems to be suffering from a want of support. There is, probably, no more anxious work than the management of such a school, and it should command the most intelligent sympathy of the Education Committee.

Park Row, Bristol.

Visited.—14th May, 12th April, and 26th March, 1907.

Inmates.—Total number in school, 80; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. James Franks (c.) and Mrs. Franks. There has been a change in the post of labour-master.

Premises.—A new floor has been laid in the dining-room. The dormitories and dining-room have been coloured, and the lavatory painted.

Standards with awards.—Standard V, 9, very fair; Standard IV, 13, good; Standard III, 19, very fair; Standard II, 17, very fair; Standard I, 13, very fair; Preparatory, 5, poor. The general award is very fair. The preparatory boys have not received proper attention.

Class subjects.—Singing—sol-fa, very fair. Composition, in V very fair. Recitation, good. Mental arithmetic, very fair. Geography, good. Object lessons have been taken by all standards up to IV. The development of intelligence is very fair.

Industrial training.—Extra finish will greatly improve the drawing. A very good year's work has been done in manual instruction. The technical instruction in both tailoring and shoe-making would gain by the adoption of a carefully arranged syllabus of lessons, in proper sequence.

Physical training, &c.—The free and applied gymnastics were full of vigour, and in general position was well maintained. A vaulting horse has been added to the apparatus. The school were the runners up in the cricket league of the Home Office schools. The boys had a fortnight's holiday on the Mendip Hills.

Health.—A boy who had been in hospital two months died in June, 1906, of heart failure, following on diseased bones in the legs. There was a somewhat similar case of sacroiliac disease which yielded to treatment after seven months, and the boy is still in the school. In September and October there were several cases of tonsilitis. Other ailments have been shingles, frostbite, and a case of sore eyes. Boys are carefully examined on admission both by the medical officer and dentist. The latter has been appointed this year.

Conduct.—The conduct has not given much trouble, but there have been four absconders in the year, and one, boy attempted to abscond. Smoking, laziness, and disobedience have also had to be corrected. The mark system is relied on to maintain the ordinary discipline

General remarks.—Until an assistant teacher is appointed, allowance must be made for the want of efficiency in the schoolroom. In other respects the school is doing well; the boys are bright, and evidently well cared for.

Clifton.

Visited.—13th May, 28th June, and 3rd October, 1907.

Inmates.—Total number in school, 198; voluntary cases, 3*; on licence, 5; absconders, 0.

Staff.—Superintendent and matron, Mr. F. Lewis Lord (c.) and Mrs. Lord. There has been a change in the post of carpenter.

Premises.—The brush shop has been discontinued and the room is now the carpenters' shop. The old carpenters' shop is to be used as a sewing-room.

Standards with awards.—Standard VI, 28, good; Standard V, 30, very fair; Standard IV, 37, good; Standard III, 34, good; Standard II, 33, good; Standard I, 16, good: Preparatory, 18, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, very fair. Recitation, very fair. Geography, good. Mental arithmetic, very fair in VI and IV, fair only in V and III. Good object lessons had been given to the lower standards. The development of intelligence is on good lines. Shorthand writing is taken by Standard V, and algebra has been commenced in Standard VI.

Industrial training.—Drawing is generally fairly good, and would be made first-rate with better finish. There has been a

* Poor Law cases.

change of manual instructor, and this department has been shifted into better quarters; the prospect is good. There is a considerable carpentry and cabinet-making section. Technical instruction is receiving earnest attention in the tailors' shop; the work should also be properly organised in the shoemakers' shop as soon as the new instructor takes up duty. The tools in the carpenters' shop have been renewed, and new band instruments purchased.

Physical training, &c.—There is one good squad at free gymnastics and another at applied work. The general training might be improved. Football and cricket are played in their respective seasons. A visit was paid in the summer to Weston-super-Mare. Various entertainments have been given to the boys.

Health.—A boy died of phthisis in December, and another, who was discharged on account of heart disease, died shortly afterwards at his home. A boy was also treated in hospital for tubercular peritonitis, and has returned to the school recovered. In October there were two serious cases, one of pleurisy and another of severe pains in the head, the last-named case ended in the loss of the sight of an eye. The boys' teeth are regularly inspected by a dentist.

Conduct.—A few boys have been punished for picking locks, stealing, and not returning from work or play on the Downs. Smoking, being out of bounds, disobedience, &c. have also had to be corrected, The mark system appears to keep the tale of trouble from being unduly long.

General remarks.—Care will have to be taken to maintain the schoolroom work at the high level it has for some time maintained. A word of praise is due to the bandmaster, who has now over 100 boys in army bands.

Milton.

Visited.—13th June and 28th October, 1907.

Inmates.—Total number in school, 152; voluntary cases, 119; on licence, 0; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. H. Tyson. There has been one change among the sisters, otherwise the staff remains the same.

Premises.—There has been no change in the buildings.

Standards with awards.—Standard VI, 15, good; Standard V, 17, good; Standard IV, 22, good; Standard III, 27, good; Standard II, 22, good; Standard I, 30, good. The general award is good.

Class subjects. — Singing — sol-fa. Composition, good. Recitation, very fair in V and VI, good in other standards. Mental arithmetic, very fair in III and IV, good in other standards. Geography, good. The development of intelligence is good.

Industrial training.—Drawing is generally very fair. Manual instruction has been commenced and will now no doubt be developed. There are signs that the boys have been well

taught so far, and some promising work was shown. In the tailors' and bootmakers' departments some interesting information is given with the practical work. The band is still the chief feature in the school.

Physical training, &c.—Drill is taken by the whole school for a short time every day. Exercises with dumb-bells were smartly performed, and a picked squad gave a display over the horse. A few of the boys are taught Indian club drill and the use of the skipping rope. But a well-considered scheme of free gymnastics should be provided for the benefit of all. Football and cricket are played on a neighbouring common. Each summer there is a holiday camp at the seaside.

Health.—The health has been very good. One boy had enteric fever, two suffered from rheumatics, another had a polypus removed from his ear. These cases, with one of eczema and two scalds, are the only serious entries in the book. Boys are sent to a dentist when their teeth ache. Many schools find regular visits from a dentist to inspect all the teeth of great value.

Conduct.—The general conduct has been good. There have been a few cases of pilfering, insolence and disorder. In the schoolroom a few boys have been punished for laziness, inattention, &c. The boys are pleasant and well behaved.

General remarks.—The manual instruction shop is fitted up for four boys. There is room for six, but it is to be hoped that a larger room will be provided. The school lags in industrial enterprize. But that good boys and true are turned out, who do credit to those who have had the care of them, is very evident.

Hereford.

Visited.—9th and 5th July and 7th January, 1907.

Inmates.—Total number in school, 121; voluntary cases, 12; on licence, 16; absconders, 0.

Staff.—Superintendent and matron, Mr. E. Horth (c.) and Mrs. Horth. The schoolmaster, Mr. J. Scougall, left 7th January, 1907, and was succeeded by Mr. J. T. Bell (t. & c.), 1st March, who left 16th March, 1907. He was succeeded by Mr. A. J. Mesney (t. & c.), 24th April, 1907. The basketmaker has left.

Premises.—There has been no change in the buildings. The sink by the dormitory was stopped and had probably better be removed.

Standards with awards.—Standard VI, 10, very fair; Standard V, 9, very fair; Standard IV, 21, good; Standard III, 18, very fair; Standard II, 24, good; Standard I, 23, good; Prepatatory 16, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI, very fair. Recitation, good. Mental arithmetic, very fair in III, good in other standards. Geography, good generally. Object lessons had been taken by the lower standards. The development of intelligence is on good lines.

Industrial training.—The drawing is now in very capable hands, and first-class results may soon be expected. Technical instruction is reciving attention in the tailoring and shoemaking shops, and carefully drawn schemes of lessons would become a strong factor in the boys' training. The same remark applies also to gardening and baking. About a dozen boys are engaged in basket-making. The school is an enterprising one industrially, and if this spirit of enterprise could be extended to the establishment of a wood-working department, the result would be equally advantageous to the boys, and gratifying to the Directors. The band is a very fair one. It would be greatly improved by more reed instruments.

Physical training, &c.—The physical training is entirely free gymnastics, but it is below the mark, and deserves special attention and more time. Football and cricket are played in their seasons. About 30 boys could swim last year.

Health.—There have been two cases of pneumonia, and one of pleurisy. Another boy who had bronchitis developed pleurisy, and subsequently pneumonia, but all made good recoveries. A voluntary case was admitted suffering from cretinism, but was discharged. There have been a few skin troubles, and two ulcerated feet. A contused hip and fractured wrist were the only accidents.

Conduct.—The record of conduct does not show that many have got into trouble, but there have been four cases of stealing, and four boys absconded after trying to set fire to the dormitory, Two of these were sent to a reformatory. There is a mark system carrying money rewards. It would be of great benefit if the managers could see their way to having a regular inspection of the boys' teeth.

General remarks.—It is creditable that the schoolroom came out so well, as there was no head teacher for about four months. The boys are agreeable in manner if somewhat lethargic.

East London.

Visited.—7th May and 14th June, 1907.

Inmates.—Total number in school, 149*; voluntary cases, 0; on licence, 9; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. J. Cartwright. There has been no change in the staff.

Premises.—There have been no structural alterations during the year, but much has been done in the way of renewing and polishing the floors of the dormitories, besides decorating the interior of the house generally.

Standards with awards.—Standard VI, 10, good; Standard V, 21, good; Standard IV, 25, good; Standard III, 37, good;

* Including one recalled.

Standard II, 31, good; Standard I, 18, good; Preparatory, 7, newcomers except two. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good in VI, very fair in V. Recitation, good. Mental arithmetic, very fair generally. Geography, good. History readers have been in use, and useful lessons on health and citizenship have been given to all classes.

Industrial training.—Drawing is generally good; a little better finish would well repay the effort. The manual instruction is in good hands; the instructor will doubtless give due weight to accuracy in elementary details as they recur in later work. A number of boys have been engaged in advanced carpentry and joinery about the premises. Technical instruction is receiving increasingly good attention in the tailoring and shoemaking shops, and is likely to still further improve as time goes on. The 10 boys in the metal-working and plumbing shop are becoming skilful at their practical work and gradually acquiring technical knowledge. The kitchen and ornamental gardens afford excellent training to the "garden" boys—the more so from the superintendent's own personal interest in this department. The brass and reed band is as good as ever. Disposal and after supervision are admirably managed.

Physical training, &c.—This continues to be very good. The exercises, both free and with dummy rifles and clubs, are varied and good. Applied gymnastics are also gone through very smartly and in good style. At organised games the school not only plays with others of its own class, but takes a prominent part in the schools' league of its district, which also includes competitions in swimming and rifle shooting. Besides entertainments and other treats there is an annual holiday of a week or two at the seaside.

Health.—The general health has been good. The only exceptions worthy of note were two cases of mild chicken-pox, two that were supposed to be scarlet fever—all of which made good recoveries, and two boys (brothers) who were in hospital suffering from consumption. The teeth are well attended to.

Conduct.—There is nothing very serious to note under this heading. Some cases of dishonesty in word or act, and some idleness, skylarking, and other boyish misdemeanours have called for correction, but the general tone of the school is evidently sound.

General remarks.—A capital school which does credit to all concerned. A firm grip has now been taken of industrial training, and the prospect of this side of the school's activities is specially bright.

St. Vincent's (Dartford).

Visited.—17th and 13th June and 29th November, 1907.

Inmates.—Total number in school, 201*; voluntary cases, 0; on licence, 14; absconders, 0.

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* Including one about to sail for Canada.

Staff.—The school is managed by a Brother Director and seven Brothers of the Presentation Order. Brother Louis was succeeded by Brother De Sales on 1st July, 1907. Amongst the lay staff there have been changes of cook, laundryman, nurse and labourer.

Premises.—There have been no structural alterations during the year. The premises are kept in excellent order and the boys are clean and sensibly dressed.

Standards with awards.—Standard VI, 23, good ; Standard V, 24, good ; Standard IV, 32, good ; Standard III, 42, good ; Standard II, 42, very fair ; Standard I, 25, good ; Preparatory, 12, new-comers, making progress. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, fairly good. This subject should be taught throughout. Recitation, very fair generally. Mental arithmetic, good in VI, very fair otherwise. Geography, fairly good. History readers might well be used more frequently. Some object lessons have been given to the juniors.

Industrial training.—Drawing generally shows advance. Some of the work is still a little rough, but this can be easily corrected. Scale drawing in Standard IV is good, but geometry in V and VI is weak. Woodworking (manual instruction) is not quite up to the high level of previous years. It would be an advantage if the total number of boys taking wood-working could be increased, and boys who have passed through the earlier stages could continue at the higher work even for three or four years. Technical instruction is receiving first-rate attention in the shoemaking shop, and to a less degree in the tailoring shop. The smithying, plumbing and wheelwrights' shops require more than a passing word of praise. The boys in these shops are not only workmanlike, but have an intelligent appreciation of matters surrounding their subjects. Much might be done for the gardening boys by a regular scheme of theoretical instruction, as also for the bakers. There are about 80 boys under musical instruction, and the first band of 40 is very good.

Physical training, &c.—This continues to be very good. Up to date free exercises, drill with clubs and dumb-bells, and work over the horse and on the parallel bars, as well as skipping, are carried on under the supervision of a visiting expert. Swimming, running, pole jumping, and rifle shooting also receive a good deal of attention. The school drew with another for the football cup, and its representatives show to advantage on all occasions.

Health.—One boy, suffering from epileptic fits, who developed phthisis, was discharged as unfit, and is now in the union infirmary. A case of threatened tubercular disease made a good recovery after two months' treatment. A case of rheumatism also recovered. Beyond some slight ailments and a few accidents, there has been nothing else to note, and the general health has been very good. The teeth receive attention, a dentist attending quarterly.

Conduct.—One new boy ran away the day after admission, but was brought back in a week. Otherwise there is nothing to note beyond two cases of pilfering and a few of laziness, disobedience unpunctuality and inattention in the schoolroom.

General remarks.—This is a busy, well-managed school. A high degree of intelligence is evident in the conduct of the industrial departments, and in the cultivation of a genuine sports manlike spirit amongst the boys. There is, moreover, a certainty of careful attention being given to all reasonable suggestions.

St. Vincent's, Junior (Whitstable).

Visited.—2nd and 19th July and 3rd December, 1907.

Inmates.—Total number in school, 50; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Sister Clare Joseph, the superintendent, left in June, 1906, and was succeeded by Sister Mary Mildred.

Premises.—There has been no alteration in the premises.

Standards with awards.—Standard I, 12, good; Preparatory, 25, good; Infants, 13, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Recitation, good. Mental arithmetic, good. Geography, good. Object lessons, good. The boys were bright and intelligent.

Industrial training.—Those who are old enough help in the making of beds and light work about the house. A special word of commendation must be paid to the drawing in this little school, not the least important feature of which is the attention paid to those children who show special ability; some of their drawings would do credit to children two or three standards higher. The drawing is supplemented by paper cutting and folding.

Physical training, &c.—The physical exercises are well adapted to young children. The boys were brisk in their movements, and carried themselves well. There is ample scope for walks and exercise in the country, but the neighbourhood will not always be so open, and the play-yard is small.

Health.—A boy suffered in June, 1906, from sacroiliac disease, and was discharged. Another (a tubercular case) who was discharged, died within a few days. A boy was admitted with scabies, but it fortunately did not spread.

Conduct.—The conduct has given but little trouble. A few boys have had to be corrected for disobedience, destroying clothing and throwing stones. A mark system would be found helpful.

General remarks.—This is a pleasant little school, and the boys appear to be getting every care and attention.

Bolton.

Visited.—7th February, 17th January, and 26th September, 1907.

Inmates.—Total number in school, 200; voluntary cases, 0; on licence, 22; absconders, 1.*

* Mentioned in previous reports.

Staff.—Superintendent and matron, Mr. and Mrs. Richard Gorst. There have been changes in the posts of clerk and manual instructor.

Premises. — There have been no structural alterations. Machinery has been installed in the shoemakers' shop. The engine should be further guarded.

Standards with awards.—Standard VI, 27, good; Standard V, 30, very fair; Standard IV, 47, very fair; Standard III, 30, good; Standard II, 27, good; Standard I, 25, very fair, and Preparatory 14, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Mental arithmetic, very fair in IV, II, and I, good in V, VI, and III. Recitation, very fair. Geography, good generally. Composition, very fair. Object lessons, very fair. The development of intelligence is very fair.

Industrial training.—Drawing is particularly good in Standard I, but the work of III, the scale drawing of IV, and geometry of V and VI are weak; very fair otherwise. The manual instruction drawing is good, and the practical bench work is likely to be in good hands under the new instructor. The instruction in the shoemaking shop is probably unsurpassed in any school. Finishing and sole-stitching machines and an open-ended cutting press are being put down. The technical instruction in the tailoring shop is now very fair, and likely to advance. About a dozen boys receive training on the farm and garden. All the seven band boys who have left since October have gone into army bands. The band took 3rd prize at the Crystal Palace National Band Contest.

Physical training, &c.—In free gymnastics, marching, and applied work the execution is vigorous and precise—proper attention is paid to "form." A field near the school is being prepared for games. At football the boys have not done so well this year. Thirteen matches have been played with outside teams in addition to league matches. Cricket and athletics are organised. There have been lantern lectures in the winter evenings. The rifle range is well used, and there are a number of good shots.

Health.—The health has been good. The only serious case was one of pneumonia in March, which made a good recovery. A case of eczema has been treated, and there have been a few bad chilblains. Two slight accidents also needed treatment. The boys' teeth are looked after by a dentist.

Conduct.—The most noticeable offences have been appropriating money, refusing to work, stealing, and five cases of absconding. Talking, cheating, and bad work have needed correction in the schoolroom. There is a mark system carrying money awards.

General remarks.—The character of the instruction in the lower standards needs special attention on the part of the head teacher. The class-room requires some re-arrangement. In the matter of industrial training the school is steadily advancing, and there is, generally, abundant evidence of care for the welfare of the boys.

Ardwick Green, Manchester.

Visited.—1st February and 21st January, 1907.

Inmates.—Total number in school, 179; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent and matron, Mr. J. Allison (t. and c.) and Mrs. Allison. Mr. T. McCann (t. and c.) left 13th September, 1906, and was succeeded by Mr. J. V. Cartwright (t. and c.) 9th October. There has been a change in the post of engineer, three changes in the post of clerk, and one in the post of assistant matron. Mr. Clarke gave up the post of gymnastic instructor 23rd June and was succeeded by Mr. Phillips in August, but the latter left in December and the post is not yet filled.

Premises.—The clerk's office has been turned into a sitting-room for the teachers. An iron emergency staircase, connecting the hospital and No. IV dormitory, has been put up. The miniature rifle range (in the cellars) is now in working order.

Standards with awards.—Standard VI, 22, good; Standard V, 39, good; Standard IV, 27, good; Standard III, 41, very fair; Standard II, 20, good; Standard I, 16, good; Preparatory, 11, good. The general award is good.

Class subjects.—Singing—sol-fa, good (exceptional). Mental arithmetic, good. Geography good. Recitation, very fair in VI and III, otherwise good. Science lesson to IV and III. Good object lessons to II and below. Composition in V and VI, good. Development of intelligence on good lines.

Industrial training.—Drawing is, at the present, generally very fair, and is likely to improve under the new head teacher. The free-arm drawing and colour work of the lower standards must be specially noticed. In manual instruction the boys did not deal very successfully with the practical tests. Technical instruction in tailoring and shoemaking requires to be properly organised; it might also, with advantage, be introduced in the bakery. The immediate work for this school is undoubtedly the placing of the technical instruction in the various trade shops on a sure footing, and its thorough supervision by the superintendent. There is an excellent band.

Physical training, &c.—In the military drill, dumb-bell and club exercises, the movements were precise. Evidently considerable pains taken. The applied gymnastics showed a shade less finish than usual owing to absence of an instructor. In swimming eight medals for efficiency in life saving were given by the 100 of Salford. From 20 to 40 boys shot at the rifle range. There is no field for games, football is practised in the yard; the school belongs to the league. For winter evenings there are a ladies' recreation class, carving and painting classes. Lectures on the manufacture of iron, magic-lantern and band of hope entertainments.

Health.—The general health has been good. No death has occurred nor has any boy been discharged as unfit for the training.

Three sporadic cases of scarlet fever (one in hospital on the day of inspection), a case of measles, one of appendicitis, some skin affections and two accidents, all of which have made good recoveries, are the only ailments noted in the doctor's book.

Conduct.—There have been five cases of absconding during the year, and a few of stealing. One boy has caused trouble by circulating tales of any officer who may have reported him for bad work.

General remarks.—The school has the advantage of an excellent auxiliary home and after supervision of the boys receives a creditable amount of attention on the part of the superintendent.

Barnes' Home.

Visited.—15th and 16th February and 18th January, 1907.

Inmates.—Total number in school, 259; voluntary cases, 0; on licence, 16; absconders, 0.

Staff.—Superintendent and matron, Mr. B. C. Housden (t. & c.) and Mrs. Housden. Miss Foweraker (c.) left on 30th July, 1906, and was succeeded 1st August, 1906, by Miss Bertha Bruckshaw (c.). There have also been changes in the posts of lodge-keeper, watchman, shoemaker, seamstress.

Premises.—The laundry has been fitted with machinery driven by electricity. All parts of the buildings were clean and in order,

Standards with awards.—Standard VII, 12, good; Standard VI, 26, good; Standard V, 38, good; Standard IV, 50, good; Standard III, 42, good; Standard II, 36, good; Standard I, 24, good; Preparatory, 21, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, fair in III, good in other standards. Geography, very fair in II and IV, good in other standards. Recitation, good. Composition, V, VI, VII, good. Nature knowledge study is taken throughout. The development of intelligence is good. In large measure this is attributable to the recreative classes conducted by various members of the staff independently of their hours of duty.

Industrial training.—Drawing is not uniformly good throughout, but as a rule the books showed that the subject had been carefully taught during the year. Model drawing has received special attention. Solid geometry should be introduced. In woodworking the bench-work was somewhat disappointing. It would be an advantage if a more intimate connection between the drawing and the bench-work could be made in the arrangements for doing the former. Technical instruction in the tailors' shop promises exceedingly well, and the new shoemaking instructor is likely to very soon show a good grasp of his work. Instruction in the theory of baking is made a special feature, and the boys respond heartily to the master baker's own enthusiasm. About a dozen boys receive training in the well-worked gardens.

The brass and reed and string bands continue to provide good musical training.

Physical training, &c.—Military drill, free and applied gymnastics are organised for the whole school. The system and its execution are worth study by any school. At football, the school made a fine fight with the winners of the Cup for 1906. Cricket scarcely takes the place to which it is entitled in the boys' affection. At athletics five cups were brought to the school from the North of England meeting. Rifle-shooting too deserves mention, the competitions on the miniature and open ranges are very keen. And for recreation of the mind there is a long list of lectures of interest and entertainments.

Health.—The general health has been good. There has been no death, and no boy has been discharged as unfit for the training. The most severe cases came at the end of 1906 and beginning of 1907, viz :—two of pneumonia and one of peritonitis made good recoveries, and a case suspiciously like tuberculosis is much improved. At different times in the year there have been some feverish colds, enlarged glands, skin troubles, and conjunctivitis. The honorary dentist visits quarterly and examines half the school at each visit.

Conduct.—The most serious case of misconduct was one of persistent stealing. With the exception of a case of absconding there is really nothing but boyish freaks to record. The mark system is thoroughly well worked in every department of the school.

General remarks.—The above remarks should speak for themselves. The committee are to be congratulated on their school, and the staff and boys on a record of work worthy of the highest praise.

St. Joseph's (Manchester).

Visited.—18th and 19th July, 12th September, 12th and 22nd February, and 16th October, 1907.

Inmates.—Total number in school, 310* ; voluntary cases, 3 ; on licence, 27 ; absconders, 2.

Staff.—Brother Finn Barr (t. & c.) was appointed superintendent on 27th November, 1907, in the place of Brother Gall. There has been a change in one of the teachers in the junior section. There have been changes in the posts of cabinet-maker and wood carvers.

Premises.—Both "Homes" have been repainted; a fire-escape made from one of the dormitories into the lead-light shop ; a new boiler for heating water has been placed in the junior department. Many other repairs have been done, four men being kept constantly to overhaul decayed fabric. The inconvenience of the buildings has been frequently mentioned. The fire-drill needs organisation.

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* Including 25 in the "Home."

Standards with awards.—Standard VI, 17, good; Standard V, 25, good; Standard IV, 42, good; Standard III, 36, good; Standard II, 43, good; Standard I., 37, good; Preparatory, 7, good. Work in I, though accurate, was untidy. Several new boys, presented too low, had not received sufficient attention. The general award is good. *Junior section*:—Standard III, 17, good; Standard II, 30, good: Standard I, 29, good; Preparatory 20, good The general award is good. The preparatory standard is cramped for room, and needs improved apparatus. As pointed out in last year's report an effort should be made to brighten the class-rooms. It is to be hoped that progress on this side will become more rapid.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI, good. Recitation, very fair in II and IV, fairly good in other standards. Mental arithmetic, fair in III, good in other standards. Geography, very fair in III, good in other standards. History, and good object lessons had been taken. The development of intelligence is good. *Juniors:*—Singing—sol-fa, good. Recitation, good in all standards. Mental arithmetic, very fair in III, good elsewhere. Geography, in II and III, good. Good object lessons had been given to all. The development of intelligence is on good lines.

Industrial training.—The drawing is better than it has ever been before, and is likely to continue to improve. A great advance has been made in manual instruction, and the higher grant has been well earned. The work in the metal shop is both practical and precise. The boys in the cabinet-making shop are receiving genuine training, and this is now a strikingly workmanike department. Two boys are engaged in the joiners' shop and one at wood-working. In the tailoring and shoemaking shops good schemes of technical instruction lessons have been drawn up, upon which the school must be complimented. Lead-light work engages 14 boys. Technical instruction might well be given in the bakery.

Physical training, &c.—There was a good display of Indian club drill on the senior side. Remarks made last year as to development still apply. The boys are too weak to tackle the apparatus. The horse and belts have been started. The school is champion Home Office school for cricket—the football cup has been won back, and cups were won for high jump and throwing the cricket ball. The drill for the juniors is not suitable for such young children. It wants brightness and variety.

Health.—The general health has been good. In September there was a death from heat stroke. In the following quarter a case of scarlet fever. In the March quarter the health was very good, and in the June quarter it was good with the exception of 17 cases of influenza. Some cases of rheumatism, bronchitis, quinsy, and skin troubles have been treated. A boy was successfully operated on for periostitis, and one boy was seriously ill with obstruction of the intestine, but has now recovered. The boys' teeth are inspected, but they do not appear to clean them.

Conduct.—One boy who absconded three years ago is still at large, and another boy ran away in March, and has not been

brought back. Several new boys have attempted to abscond. There are also entries for absence without leave. Stealing (2), lying (2), and the usual schoolroom offences, but the number of these is not large. A money reward system has been started.

General remarks.—Improvement has been made in the teaching of the junior section, and even better results may be expected in future. That the management of this school requires no ordinary ability must be acknowledged by all who study the question. The difficulties are increased by the total ineptitude of the buildings, their close proxmity to the parents, the size of the school, and the decline in the number of boys.

Liverpool.

Visited.—14th February and 9th January, 1907.

Inmates.—Total number in school, 198* ; voluntary cases, 0 ; on licence, 20 ; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. A. R. Barclay. Assistant schoolmaster, Mr. J. W. Turner (Art. 50) left 31st August, 1906, and was succeeded by Mr. J. S. Lloyd (Art. 50), 17th September. There has been a change of laundress.

Premises.—Apart from necessary repairs, and useful minor improvements, the premises have undergone no alteration. Cleanliness and order were creditable throughout, both in the school itself, and in the Hornby Home.

Standards with awards.—Standard VI, 15, good ; Standard, V, 24, good ; Standard IV, 36, good ; Standard III, 52, good ; Standard II, 37 good ; Standard I, 19, good ; Preparatory, 15, making good progress. The general award is good. Work throughout showed a high level of excellence. Reading merits special praise.

Class subjects.—Singing—sol-fa, good ; above the average. Composition, good. Mental arithmetic, particularly good. Recitations were well rendered throughout, and the pieces were well selected. Geography, good. History, good. Good object lessons have been given. The boys were remarkably bright and intelligent.

Industrial training.—Drawing is thoroughly well taught, though a little slow in Standard IV. Manual instruction must be again commended with a recommendation in favour of extending the higher work. Technical instruction receives good attention in both the tailoring and shoemaking shops. Printing provides training for two dozen boys. The work in the little plumbing shop might well be systematised and extended. About 50 boys are engaged in bag-making. The band is kept up. Due attention is paid to disposal, and to supervision of boys after leaving.

Physical training, &c.—A fine display of free gymnastics was given by the whole school, and a squad of boys went through some applied work in excellent style. About half the school can

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* Including 14 in auxiliary home.

swim, and the elder boys make good use of the miniature rifle range. The school holds the Melly cup for gymnastics, the Hornby cup for cricket, the Dallow football cup for Liverpool schools, and jointly with another school, the Inspector's football cup for North of England schools. The three weeks' camp in the Isle of Man proved as successful and beneficial as ever.

Health.—The health has been remarkably good all through the year. Single cases of pleurisy and erysipelas, with a few of influenza are, with the exception of a fractured arm, the only ones that have called for treatment, till the last day or two, when a boy developed measles. A number of recent admissions appear the reverse of robust, but these and others receive extra feeding up.

Conduct.—The conduct has given rise to no trouble of more than ordinary character. A few boys have been found out of bounds, and a new boy attempted to abscond, otherwise the only offences have been disobedience, pilfering, and so forth. The system of marks and rewards continues to work satisfactorily.

General remarks.—Great as has been this school's reputation in the past, this inspection serves only to enhance it. One more is added to the series of years in which the highest mark has been given to every standard in the schoolroom.

Grafton Street, Liverpool.

Visited.—13th February, 9th January, and 26th October, 1907.

Inmates.—Total number in school, 199 ; voluntary cases, 1 ; on licence, 19 ; absconders, 0.

Staff.—The governor and matron, Mr. C. H. Holmes (t. and c.) and Mrs. Holmes left 28th February, 1906. Mr. and Mrs. T. Robinson (both c.) were appointed 1st March, 1906. The head teacher, Mr. A. Mills (c.), left 31st July, 1906. Mr. S. W. Smith (t. and c.) succeeded him 1st August. Miss E. Pedlar (Art. 50) left 31st July, 1906, and was replaced by Mr. E. Williams (Art. 50) 25th September, 1906. A plumber has been added to the staff. There has been a change of joiner.

Premises.—There have been no structural alterations, but among other minor improvements, a portion of the premises has been set apart for the exclusive use of very young boys. The buildings, including the auxiliary home, were in a creditable state of cleanliness and order.

Standards with awards.—Standard, VI, 27, good ; Standard V, 19, good ; Standard IV, 27, good ; Standard III, 51, very fair ; Standard II, 25, good ; Standard I, 27, good ; Preparatory, 20, mostly new-comers. The general award is good. Arithmetic is a weak subject in III.

Class subjects.—Singing—sol-fa, good. The introduction of staff notation is recommended. Composition, good. Mental arithmetic, good generally, very fair in VI, fair in III. Recitation, good. Geography, good. Some good object lessons have been given. Intelligence is being well developed.

Industrial training.—Drawing is at present merely moderate, but the new head teacher is likely soon to improve on this. The woodworking instructor does not appear to have been greatly in earnest, neither bench work nor drawing being a success. Special attention is likely to be given to technical instruction in the tailoring and shoemaking shops. Printing provides employment for a dozen boys. The school is to be congratulated on the establishment of a small plumbers' shop in September last, and in which a really good start has been made. The band of 36 would gain in efficiency by some instruction in theory. Good places are found for the boys, and close touch is kept with them after leaving, the well-managed Auxiliary Home proving a valuable help.

Physical training, &c.—Free gymnastics are taken by the teachers twice a week, and a squad of boys showed admirable style in applied gymnastics. The school carried off the Liverpool and District shield last year. Cricket and football are played with success, and the boys have had various treats. A successful month was spent in camp at Hightown. Eighty-three old boys attended the reunion at the beginning of January. There is a good library, and an addition to facilities for indoor recreation is a magic-lantern.

Health.—A boy died in hospital from heart disease in September. There are two in hospital at present being treated for hernia. Otherwise, apart from nine cases of chicken-pox and a few colds, there has been no ailment to note. The excellence of the health must be attributed to the assiduous medical attention which the boys receive, end to the special care with which delicate ones are looked after by the matron.

Conduct.—Though the record contains a fair number of entries, the offences to which they relate are not of a serious character. The general conduct indeed has been good throughout the year. Occasional cases of dishonesty, mischief, disobedience, neglect of work, and so forth are only to be expected, Minor offences should, as far as possible be regulated by means of the mark system. The boys are allowed considerable liberty and have shown no disposition to abuse it.

General remarks.—The changes in staff, so far from interrupting the progress of the school, have given it a new impetus with every promise for the future. In this connection the untiring help, encouragement, and sympathy of the committee is cordially acknowledged.

St. George's, Liverpool.

Visited.—7th and 8th February and 8th January, 1907.

Inmates.—Total number in school, 272; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent and matron, Mr. F. J. Norton and Mrs. Norton (c.); assistant-superintendent, Mr. R. Delaney. Mr. J. C. D'Alton (c.), joined as assistant-teacher, 12th April, 1906. Mr. J. Phair (Irish t. & c.), 2nd schoolmaster, left

30th September, 1906, and was succeded, 1st October, by Mr. T. Ryan (Irish t. & c.). The engineer died in March, after 30 years' service, and a new one has been appointed. There has been a change of sawyer.

Premises.—The playground has been newly asphalted, and the interior of the main building painted. An up-to-date addition is a miniature rifle range.

Standards with awards.—Standard VI, 20 good; Standard V, 22, good; Standard IV, 46, very fair; Standard IV, 58, very fair; Standard II, 66, good; Standard I, 50, good; Preparatory, 10, new-comers. The general award is good. The large number in the lower standards is partly due to previous neglect.

Class subjects.—Singing—sol-fa, very fair. The introduction of staff-notation is recommended. Composition, very fair. This should be taught throughout. Mental arithmetic, good generally, fair in intermediate group. Recitation, very fair. Geography very fair. Some very fair object lessons have been given. The development of intelligence is very fair.

Industrial training.—Drawing has much improved, though scale drawing (Standard IV) still requires special attention. The new manual instructor has made a good start, the improvement in drawing being most marked. The metal-working and wood-working shops are both to be commended. The cabinet-making department provides extended training for a score of boys. Technical instruction is being made a leading feature in the tailoring and shoemaking shops. Taken altogether the industrial side of this school never made quite so good an impression as it has to-day. There is a good band; 70 are under instruction, and one boy gained the gold medal in the Liverpool solo-playing contest, a capital way of celebrating the provision of new instruments. The Home in Everton Road is an invaluable aid towards effective disposal.

Physical training, &c.—The whole school is taken through a well-designed course of military drill and free gymnastics. A gymnasium, even of moderate size, would greatly enlarge the scope of the physical training. All forms of athletics are encouraged, and the playing field is made good use of for games and for the annual camp.

Health.—The general health has been satisfactory. There have been, however, two deaths, one in September from pneumonia, and one in January from acute hereditary phthisis, after receiving every possible attention in hospital. A boy is in hospital at present with cellulitis. The only other cases of a serious nature were one of appendicitis and one of internal inflammation, which eventually recovered. A stripped examination is held every three months, and the boys have the services of a dentist.

Conduct.—In spite of several changes in the staff the general conduct has been distinctly satisfactory. The recorded offences consist mainly of petty misdemeanours. The only one calling for special mention was that of a boy sent out on a message who tried to abscond. A mark system is in operation. The schoolroom discipline merits a word of praise.

General remarks.—Considering the difficulties which have had to be faced, the year's record reflects a large measure of credit upon all concerned.

St. Anne Street, Liverpool.

Visited.—5th February, 8th January, and 4th and 5th November, 1907.

Inmates.—Total number in school, 150; voluntary cases, 0; on licence, 12; absconders, 1.

Staff.—Superintendent and matron, Mr. and Mrs. H. A. Pridgeon. The assistant schoolmaster, Mr. P. Murphy (Irish c.) left 6th April, 1906, and was succeeded on the same date by Mr. J. Moffatt (Art. 68). The printing overseer and drill master have left, and their places are vacant. There have been changes of bag-cutter and cook.

Premises.—The schoolroom has been remodelled, and the lighting and ventilation much improved. All parts of the premises were clean and in order.

Standards with awards.—Standard VI, 7, poor; Standard V, 14, poor; Standard IV, 29, fair; Standard III, 28, poor; Standard II, 26, good; Standard I, 21, good; Preparatory, 20, mostly new-comers. The general award is not more than fair. There has been a large influx of new boys, but many of these might have been presented in a higher standard.

Class subjects.—Singing—sol-fa, poor. A visiting teacher might well be engaged for this subject, and it is desirable that staff notation be introduced. Composition, fair. Mental arithmetic, good in II and I, poor otherwise. Geography, very fair. Recitation, poor in upper standards, fair generally. No object lessons have been given.

Industrial training.—Drawing is disappointing—the result of want of method and poor discipline. In manual instruction the boys are somewhat slow, but the instructor has a good grip of the work and is likely to make the department a real success. The tailoring and shoemaking shops both made a good impression. The printing works provide training for two dozen boys, and a similar number are engaged in bag-making Sixty-five boys are under musical instruction. The brass and reed band well maintains its reputation, and the string band makes a brave show. One hundred and three old boys attended the reunion recently—a striking evidence of the close touch kept with them after leaving.

Physical training, &c.—Physical training is well organised. The superintendent puts the whole school through a course of military drill, and free gymnastics; and special squads executed exercises on the parallel bars and with Indian clubs in admirable style, under the supervision of an expert friend of the school. Swimming is taught at the Corporation baths, and the school continues to hold its own at cricket, football and other branches of athletics. Ample provision is made for indoor recreation. A successful fortnight was spent in camp.

Health.—A death occurred from syncope in November. A boy had concussion of the brain as the result of a fall, and was later on seriously ill with pneumonia. There have been some five other cases of pneumonia of a milder type. A boy is in hospital, and has recently been operated on for scrofula.

Conduct.—A boy absconded a few days ago, and is still at large. Another went home when sent out on a message. The conduct generally has been good, but there are indications of weakness in schoolroom discipline.

General remarks.—The schoolroom work was tested again in November, and as no improvement had been effected either in the methods or the results as regards the upper classes, the managers propose to adopt a change of system.

Beacon Lane, Liverpool.

Visited.—6th February and 10th January, 1907.

Inmates.—Total number in school, 200; voluntary cases 2; on licence, 22; absconders. 0.

Staff.—The staff consists of Sister Vincent Morrogh and 11 Sisters of St. Vincent de Paul. There are two lay assistants in the schoolroom. Sister A. Brennan was appointed 7th September, 1906, to succeed Sister A. Mann, who left 1st August. Miss B. Gould (ex p.t.) succeeded, 1st May, 1906, Miss E. O'Rourke (ex p.t.) who left 12th April.

Premises.—A heating apparatus has been installed, and the greater part of the main building has been painted. All parts were clean and in good order.

Standards with awards.—Standard VI, 8, good; Standard V, 20, good; Standard IV, 29, good; Standard III, 36, good; Standard II, 41, good; Standard 1, 37, good; Preparatory, 29, making good progress. The general award is good. There is no boy in the school over 15 years of age.

Class subjects.—Singing—old notation, exceptionally good. Composition, good all through. Mental arithmetic, good. Geography, good. Good object lessons have been given, and history readers have been intelligently used. The juniors have had some kindergarten. The intelligence is well developed.

Industrial training.—Drawing is moderately well done and is likely to improve. In manual instruction the work requires better finish; a higher class of work should be taken with the senior boys. The subject-matter of the technical instruction in the tailors' shop is somewhat meagre, but an early extension may be anticipated. That of the shoemakers' shop is more advanced. About a dozen boys do boxmaking, and four are continually engaged in general woodwork repairs. The band promises well, though the boys are inclined to over-blow. Good places are found for some boys, but many appear to return to their homes.

Physical training, &c.—A spirited display of free gymnastics was given. This is supplemented by military drill daily.

In this connection the record of heights and weights shows some striking instances of development. The boys are enthusiastic footballers and cricketers, and frequent opportunities are taken of visiting a recreation ground. Swimming is practised at the public baths, and indoor recreation is well provided for. The fortnight's camp was a great success.

Health.—A boy died suddenly in October. At the inquest death was attributed to heart disease. In May and June there were three cases of scarlatina, which made good recoveries, and there was also a case of bronchitis. There is here no quarterly medical examination, such as is now generally regaded as a desirable precaution.

Conduct.—There appear to have been no more serious offences than disobedience, fighting, and similar petty misdemeanours. A mark system, carrying rewards, is found of benefit.

General remarks.—The school retains all its engaging qualities. The boys are full of energy and brightness, ready to meet anyone or anything. The good Sisters may be trusted to spare no pains that the boys, after leaving, may make the most of the training received in the school. An Auxiliary Home of their own might help towards this end.

St. Thomas,' Preston.

Visited.—26th March and 13th February, 1907.

Inmates.—Total number in school, 147 ; voluntary cases, 6 ; on licence, 8 ; absconders, 0.

Staff.—The school is in charge of Brother Patrick L. Burke, and six Brothers of Charity, one of whom assists in the schoolroom. There have been changes of manual instructor and tailor.

Premises.—The outside offices have been re-arranged, otherwise the premises are unaltered. All parts were clean and in order, but the yard will probably require attention in the future.

Standards with awards.—Standard VI, 4, very fair ; Standard V, 19, very fair ; Standard IV, 13, very fair ; Standard III, 19, good ; Standard II, 26, very fair ; Standard I, 35, good ; Preparatory, 32, mostly new-comers. The general award is very fair. A large proportion of the boys are new since last examination.

Class subjects.—Singing—both notations, good. Composition in VI and V, very fair. Recitation, good in some classes, very fair in others, with a tendency to sing-song. Mental arithmetic, very fair generally, good in III, fair only in V. Geography, very fair. Some object lessons have been given and history readers have been in use. Intelligence is very fair.

Industrial training.—Drawing is good in some standards, but will require special attention in III and IV ; greater neatness and finish are required. There has been a change of manual instructor during the year, the result of which must be awaited.

The equipment of tools requires completing. No record of technical instruction has been kept in the tailors' shop, and no technical instruction at all appears to have been given to the shoemakers. The band, under its talented blind instructor, makes capital progress, and fulfilled 20 engagements last year. Disposal receives commendable attention. There are 18 boys in the Home.

Physical training, &c.—A sergeant attends thrice weekly and takes the school in squads for physical drill on the Swedish system. The exercises are performed with truly admirable smartness and vigour, and the effect on the physique is striking, but the boys will never be quite at their best till they are furnished with light shoes. Football is the favourite game, and the league arranged between different teams of the boys arouses plenty of interest. Country walks are taken frequently and there have been various outings and entertainments.

Health.—Two boys were in the sick room to-day, one with cellulitis and one convalescent from pneumonia. There has been a case of congestion of the lungs, and one of sub-acute rheumatism. These have been the only illnesses of at all a serious character, but there have been some eye troubles and some cases of influenza, and one boy is subject to epileptic fits. The medical supervision is careful and thorough.

Conduct.—The large influx of new boys threatened at one time to upset the discipline. All, however, appear now to have settled down, and the faults recorded are for the most part more in the nature of mischief than anything else. The mark system appears to have been effective lately in dealing with minor offences in the schoolroom and elsewhere.

General remarks.—The schoolroom has been somewhat handicapped this year, but judicious grouping should minimise difficulty in attaining a high standard next year. Generally speaking the school is showing just those qualities which make for success.

Feltham.

Visited.—1st and 10th July, and 28th and 29th November, 1907.

Inmates.—Total number in school, 475 (including 83 Local Act cases); on licence, 80; absconders, 0.

Staff.—Superintendent, T. B. Beuttler, Esq. The bandmaster and bricklayer retired on pension and their posts have been filled up. There has also been a change in the post of gymnastic instructor.

Premises.—The lighting and ventilation of all the schoolrooms is being improved. Various other improvements have been carried out in the premises. The laundry is in better hands. Canvas beds have replaced the straw mattresses in the dormitories, which show a general improvement, being clean and fresh throughout.

Standards with awards.—Standard VI, 41, good; Standard V, 54, good; Standard IV, 57, very fair; Standard III, 71, very fair; Standard II, 61, good; Standard I, 28, good; Preparatory, 5, new-comers. The general award is just good.

Class subjects.—Singing—The upper standards have taken sol-fa and arrangements are being made for this to be taken throughout. Composition, good in VI, very fair in V. This subject should be taught throughout. Recitation, generally very fair. Mental arithmetic, good in upper standards, very fair in others. Geography, good generally; not so good in IV. History readers and science readers have been in use and some object lessons have been given, but the supply of suitable materials is deficient.

Industrial training.—Drawing shows an improvement on anything achieved before—the scale drawing of Standard IV being particularly well done. Manual instruction again shows good results. A dozen boys are engaged in carpentry about the premises. Technical instruction is very fair in the tailoring and shoemaking shops; from the former two boys (out of three) have gained the "Tailor and Cutter" diploma of merit. Some excellent drawings have been done in the building construction and brick-cutting classes, and the boys in both are keen on details; four boys (out of seven) have gained the City and Guilds certificate for brickwork. Metal-working, baking, nautical instruction and sea-cooking are other forms of industrial training; while the farm and garden also employ a large number of boys, among whom there are 20 milkers. The brass and reed band is fairly good.

Physical training, &c.—The military drill and marching are fairly good. Free exercises are taken by the whole school, and the boys are arranged in squads for instruction in applied gymnastics, at which they show to advantage. Swimming and life-saving are well taught in the fine open-air bath. Cricket and football are well encouraged, and the school has taken a prominent part in the Home Office Schools League. Each teacher has been through a course of free gymnastics.

Health.—In July, 1906, there was a death from osteomelitis. A similar case now in hospital is making a good recovery. Other ailments which have been nursed have been pleurisy, pneumonia, chicken-pox, quinsy, rheumatism, a few skin affections and an epileptic case. Four fractures have mended well. The general health has been remarkably good.

Conduct.—The record of serious offences is a short one, and includes two cases of attempting to abscond and one or two of dishonesty and bullying. The majority of the other cases refer to schoolroom offences and ordinary boyish misdemeanours. It is possible that in a large school like this a number of boys give trouble to subordinate officers with impunity, and it is a question whether a stricter discipline would not be to the general advantage.

General remarks.—A new time-table has been adopted during the year and appears to be working well. Schemes of work

for the several classes might be drawn up under the supervision of the chaplain. Generally, an improvement is noticeable in all departments, and a special word of praise is due for the marked improvement in the appearance of the boys.

Boys' Home, Regent's Park, N.W.

Visited.—23rd and 13th May, 1907.

Inmates.—Total number in school, 140; voluntary cases, 16; on licence, 3*; absconders, 0.

Staff.—Superintendent and matron, Mr. C. F. Roache (c) and Mrs. Roache. Mr. J. Johnson (t. & c.), left 6th October, 1906. Mr. W. Andrews (c.) succeeded him 27th October. There have been changes of drill sergeant and printer.

Premises.—A fine new bathroom and lavatory has been provided on the most up-to-date lines. A turning lathe of the latest design has been presented by one of the best friends of the school. A complete set of ambulance appliances has also been given, and a dispensary has been fitted up. Other improvements are in contemplation. Meanwhile the premises are scrupulously clean, and the domestic arrangements excellent.

Standards with awards.—Standard VI, 16, good; Standard V, 25, good; Standard IV, 31, good; Standard III, 25, very fair; Standard II, 26, good; Standard I, 11, good; Preparatory 6, making good progress. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, very fair. This should be taught throughout. Recitation, good. Mental arithmetic, good in most classes, very fair in III and I. Geography, good. History readers have been in use. Useful object lessons have been given. Intelligence is well developed.

Industrial training.—Drawing is receiving by no means adequate attention, particularly in the upper standards. The practical test in wood working was again a disappointment, though the special drawing has been fairly well done, and some good practical work done during the year was shown. Eighteen boys work regularly as carpenters and joiners. A lathe—the generous gift of the treasurer of the school—has been added to the wood-working appliances. Technical instruction in the tailoring shop is going steadily along, while that in the shoemaking shop and the bakery are both receiving energetic attention. The answering by the boys in the shoemaking shop was particularly bright. A change in master printer is about to take place. The band is well taught, and is a credit to the school. The places found for the boys on leaving are particularly satisfactory, and the after supervision is well organised.

Physical training, &c.—This shows a striking advance on previous years. The free and applied gymnastics will now stand comparison with those of any school of the kind. Cricket, football, boxing and wrestling are all encouraged, and this year

* 13 others on licence over 16.

rifle shooting is added. Numerous treats and outings have been enjoyed, including many visits to the Zoo, and a fortnight in camp at Deal.

Health.—A boy sent to hospital with scarlet fever has since developed Bright's disease. There have been two cases of heart disease. In one the boy, always delicate, has had to be discharged as unfit for training; the other is being sent to a convalescent home. Itch and ringworm were introduced by new boys, but both ailments were speedily checked. An epidemic of influenza in March spread to 35 cases, in one of which pneumonia supervened, and there have been other ailments of a minor character, and a few accidents. But the general health has been excellent, and is well attended to in every particular, including the teeth. A careful record is kept of the physical development.

Conduct.—A boy addicted to absconding has been sent to a reformatory. The conduct generally has been good. The most serious case was one in which a boy threw a knife at another in a fit of temper. There have been two or three cases of stealing, and a few of insubordination, and minor schoolboy faults, but the boys, as a whole, are thoroughly amenable to the kindly and tactful discipline. The elaborate mark system continues to work effectively.

General remarks.—During the last few years the Home has progressed in a remarkable manner. This would have been impossible without the devoted interest and help of friends such as few schools possess. At the same time the superintendent and matron have taken no small part in bringing the school to its foremost position, and they, with the rest of the staff, are entitled to be congratulated on the results achieved.

Field Lane, London, N.W.

Visited.—24th May and 12th June, 1907.

Inmates.—Total number in school, 120; voluntary cases, 5; on licence, 6; absconders, 0.

Staff.—Superintendent and matron, Mr. S. J. Taylor (t. & c.) and Mrs. Taylor. Mr. W. Edwards (c.) left 27th October, 1906, and was succeeded as head schoolmaster by Mr. A. M. Lord (c.) 3rd November. There have been changes of tailor, manual instructor, and needlemistress.

Premises.—The premises were clean and in order throughout. The scullery floor has been cemented, and a few minor improvements effected.

Standards with awards.—Standard VI, 13, good; Standard V, 15, good; Standard IV, 19, good; Standard III, 20, very fair; Standard II, 22, good; Standard I, 20, very fair; Preparatory 9, new-comers. Allowing for the fact that 50 boys have been admitted since last inspection the general award is good.

Class subjects.—Singing—sol-fa, very fair. Attention to voice production is desirable. Composition, good. Recitation, good. Mental arithmetic, good in upper group, fair in IV and III,

very fair otherwise. Geography, good. History readers have been used to some purpose. Useful object lessons have been given. Intelligence is now being developed on good lines.

Industrial training.—Drawing is generally receiving proper attention; in some sections the work is above the average. The establishment of a manual instruction department has been a step in the right direction, and the subject promises well. Technical instruction is a distinctive feature of the tailors' shop; and there are also good points about that of the shoemakers' shop. The band has much improved, and is rapidly advancing to a place among the best. Excellent places are found for the boys on leaving.

Physical training, &c.—This is distinctly good. The whole school take free gymnastics daily, and applied work is taken in squads. The displays all round reflected great credit on the instructor. Cricket, football, swimming, boxing, and other branches of athletics are encouraged as far as opportunities permit. The boys spent a fortnight at Dover in July, and have had their share of treats and amusements.

Health.—Health has been remarkably good. A slight case of pneumonia, single cases of rheumatism and conjunctivitis, and one of concussion caused by a fall, are the only entries to call for notice. This may be due, in part, to the special attention paid to the teeth.

Conduct.—In a somewhat unsettled year the conduct has been satisfactory. Two boys absconded twice, and other attempts to abscond were made; but the bulk of a short list consists of ordinary misdemeanour. The mark system proves an effective aid in maintaining discipline.

General remarks.—The schoolroom work promises well. In regard to this and all departments the managers may look forward with easy minds to a successful future for this carefully managed school.

Hayes.

Visited.—4th and 9th April, 1907.

Inmates.—Total number in school, 58; voluntary cases, 2; on licence, 4; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. I. Ellis. There has been a change in the post of gymnastic instructor.

Premises.—There has been no change in the premises.

Standards with awards.—Standard VI, 10, good; Standard V, 9, good; Standard IV, 12, good; Standard II, 16, good; Standard I, 6, good; Preparatory, 2, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Mental arithmetic, good. Geography, good. A good course of object and elementary science lessons had been given throughout. The development of intelligence is good.

Industrial training.—Drawing is good in most sections of the work, especially when the proportion of new boys is considered; a little extra finish would be an advantage. Good work continues to be done in manual instruction. Out of the 58 boys in the school no less than 54 participate in this useful branch of training. All the boys get their turn in the market garden, and the eight acres under cultivation reflect credit on the working resources of so small a school. Special lessons in the theory of horticulture are given by the superintendent and head teacher to the senior scholars, who appear to be very keen on the subject. Eleven plots, each 14 yards by 5 yards are worked by individual boys, each having one or two assistants. A complete system of account keeping in connection with these plots is gradually being developed.

Physical training, &c.—Free gymnastics, dumb-bell and wand exercises, and the applied work on the horse, parallel bars, and rope, are alike good. Indian clubs, skipping and boxing are also practised. The whole scheme of physical training is well conceived and carried out with spirit. Among expeditions have been one to the Crystal Palace and one to Burnham Beeches. At cricket, football, and athletics the school holds a high position for ability and sportsmanlike conduct.

Health.—The general health has been good. There have been two cases of epilepsy; one of these, a transfer from the "Wellesley," industrial school ship, was after one month's stay returned to the ship. The other case is but a slight one. There have been a few cases of tonsilitis and influenza; one of synovitis too is mentioned, the remaining entries being very slight ailments. The boys' teeth receive proper attention.

Conduct.—There has been little trouble this twelvemonth. Two boys were sent to a reformatory for absconding. The remaining offences which needed correction were pilfering, bullying, impertinence and indolence. The system of trial by jury has been remarked on in previous reports, and is still found to work well, establishing as it does a keen perception of right and wrong among all the boys.

General remarks.—The school showed to as great advantage as ever. The boys were full of spirit, bright and well-mannered, reflecting great credit on all concerned with their welfare. The school is not only successful but deserves to be.

Chadwick Memorial.

Visited.—20th June and 30th May, 1907.

Inmates.—Total number in school, 199; voluntary cases, 0; on licence, 6; absconders, 0.

Staff.—The school is in charge of Brother Bertrand and six Brothers of the Order of the Presentation. Changes have been made in the posts of drill instructor, tailor, gardener, labourer, and laundress. On removal to Stanwix, Canon Waterton was appointed chaplain, and Dr. P. Sheehan medical officer.

Premises.—The school moved from the grand stand at Newcastle to a fine building at Stanwix, near Carlisle. The building, which was formerly a ladies' college, is in good and substantial repair. Extra staircases were put in. Lavatory accommodation and outside closets are wanting and should be completed as quickly as possible.

Standards with awards.—Standard VI, 11, very fair; Standard V, 22, very fair; Standard IV, 37, good; Standard III, 36, good; Standard II, 41, good; Standard I, 35, good; Preparatory, 17, good. The general award is good.

Class subjects.—Singing—sol-fa, in three groups, good. Composition, in V and VI, very fair. Recitation, very fair. Mental arithmetic, fair in V, very fair in IV and II, good in other standards. Geography, fair in VI, V and IV, very fair in III. Good in other standards. The development of intelligence is very fair.

Industrial training.—Drawing has received steady attention; but better finish is required, particularly in the mechanical work. Much good work has been done in manual instruction, and the instructor is giving due importance to theory. Special attention requires to be paid to accuracy in elementary items. Technical instruction has received some amount of attention in the tailoring and shoemaking shops; there is plenty of room for still further advance. The garden boys are assisting to get the surrounding grounds into working order; advantage might be taken of the stretches of lawn to teach the boys the management of this important part of ornamental gardening. There is a good brass and reed band, and a string band as well.

Physical training, &c.—The school was taken in three squads of 40 and over. Free gymnastics, the horse, parallel bars, dumb-bells and Indian clubs were included in the course, and the work was very good. The school teams have got through a long list of football fixtures and won most of them.

Health.—The health has been fairly good since the boys left Newcastle. The cases noted include two of pleurisy and pneumonia, one each peritonitis, enteritis, a few strumous glands, abscesses, and skin affections, a case of corneal ulcer, and one of ophthalmia. On the day of inspection two boys were in bed, one with pneumonia and one with tonsilitis. A number of boys have been found defective in eyesight and fitted with glasses. The teeth might well be attended to by a visiting dentist. The medical officer is constant in his attentions. The cook's wife acts as nurse when required.

Conduct.—Save for a case of absconding, three times repeated, there has been no trouble with the conduct beyond the ordinary cases of disobedience and unruly conduct.

General remarks.—There are great opportunities before this school, and the improved accommodation will no doubt help the teachers, but mechanical methods must be avoided if really good results are to be obtained.

St. Vincent's (Elswick).

Visited.—16th and 14th March, and 29th August, 1907.

Inmates.—Total number in school, 70; voluntary cases, 14; on licence, 8; absconders, 0.

Staff.—The school is in charge of Sister Margaret Paine and four Sisters of St. Vincent de Paul. Sister Mary Teresa Brunicardi (c.) replaced Sister Mary Battle on 20th March, 1906.

Premises.—The infirmary, lavatory and bathroom have been repainted, and the infirmary papered. The top dormitory is dark, and the schoolroom, too, is not well lighted. It is difficult to see how the former (perhaps the most important) can be remedied, but something might be done for the schoolroom with light-coloured paint, when the time comes.

Standards with awards.—Standard V, 10, good; Standard IV, 13, good; Standard III, 10, good; Standard II, 11, good; Standard I, 12, good; Preparatory, 13, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V, good. Recitation, good. Mental arithmetic, good. Geography, good. Object lessons are given. The development of intelligence is good.

Industrial training.—Drawing is good almost throughout. The teachers must be complimented on the remarkable improvement in scale drawing. There is no technical instruction in the tailoring shop, but it is hoped that a well-defined scheme of lessons may soon be devised. It was found advisable to close the auxiliary home at the end of 1906; but it is proposed to reopen it.

Physical training, &c.—The free gymnastics, dumb-bells and marching are very good. A vaulting horse would be a valuable addition. Football and cricket are played on the Town Moor, and outside matches have been played.

Health.—There have been three deaths from phthisis, in April, July and February respectively. There are a few tuberculur cases now in the school. Other ailments that have been treated have been cases of rheumatism, ulcerated foot, tonsilitis, croup and ringworm. A boy injured his finger in the laundry.

Conduct.—No offences this year have been considered serious enough to record. The general discipline has been maintained by the mark system and monthly rewards. The spirit and tone in the school leaves nothing to be desired.

General remarks.—The school is so good in other respects that it is with the greater regret that an unsatisfactory report on the health has to be given. With children prone to tubercular trouble airy dormitories, bathed in sunshine, are of high importance. Night shirts should again be used.

Somerset.

Visited.—6th and 7th May and 27th June, 1907.

Inmates.—Total number in school, 164; voluntary cases, 0; on licence, 15; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. Donald Young. Assistant-schoolmaster, Mr. A. M. Lord (c.), left 31st October, 1906. Mr. E. J. Hathway (c.) succeeded him 17th November, 1906. Mrs. Bedford (t. & c.) was appointed infant mistress, 11th February, 1907. There have been changes of sewing-mistress.

Premises.—The premises are clean and in order throughout. Various improvements have been effected since last inspection. The play-shed in the yard has been enclosed. A new door has been made from the yard into the class-room, fire-drill has been properly organised, and a telephone installed. A possible improvement in the future is the extension of the bath.

Standards with awards.—Standard VI, 28, good; Standard, V, 31, good; Standard IV, 30, good; Standard III, 22, good; Standard II, 22, good; Standard I, 14, good; Preparatory, 13, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, very fair. Recitation, good generally, very fair in IV. Mental arithmetic, good. Geography, good. Good object lessons have been given to the juniors. Intelligence is well developed.

Industrial training.—This school has made really remarkable advance in industrial training during the last year or so. Drawing is good almost throughout. The teachers are to be complimented. Technical instruction is receiving good attention in both the tailoring and shoemaking shops, and is likely to become even better in the near future. Technical instruction might well be organised now in respect of the farm and garden work and the bakery. As regards manual instruction the instructor does not seem to realise the capacity of the boys and the high standard of workmanship which may be attained. A visit to some other schools might enlighten him. The band does not receive sufficient attention to enable it to become efficient. The boys should at least be taught their notes. The means employed for disposal and after-supervision are careful and effective.

Physical training, &c.—Free gymnastics on good lines are taken regularly, and a picked squad gave a creditable display of applied gymnastics. The school again won the West of England cricket cup, but had to resign possession of the football cup. As many boys as possible are taught to swim.

Health.—The general health has been good. The most serious cases were two of pneumonia, which made good recoveries. One of these was treated in hospital, and both were sent to a convalescent home. Conjunctivitis and ringworm have given some trouble, and among the boys kept under special observation are two with a tendency to consumption, and one with a weak heart. The medical attention is painstaking and thorough, and includes the services of a dentist.

Conduct.—The year has passed smoothly in this respect. A boy employed in the shop yielded to the temptation of taking money from the till, but the few offences noted consist mainly of ordinary boyish misdemeanours. Two gipsy boys have taken a long time to fall into the school routine. The mark system with money rewards is effectively worked, and every boy is encouraged to keep his own bank book.

General remarks.—The school again earns a good report all round, and its management inspires every confidence. Special attention may be drawn to the excellent arrangements made for very young children.

Clapham Park, London, S.W.

Visited.—4th June and 27th December, 1907.

Inmates.—Total number in school, 32*; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Mrs. E. Hartland. There has been a change of needlewoman.

Premises.—Six new basins are being fixed in the children's bathroom. The premises were clean and in good order.

Standards with awards.—The children are classified in the day school as follows:—Standard II, 1; Infants, 30. All but one being in the infants' department.

Class subjects.—The boys continue to attend a neighbouring London County Council day school.

Industrial training.—All are taught drawing in the day school.

Physical training, &c.—Drill is taken with the other children in the day school, and there is good provision for recreation in the home.

Health.—About a fortnight before the inspection a boy drank some carbolic acid, which he found in a cupboard in the sick room, but has made a rapid recovery. There is a boy in hospital with eye trouble. There have been several cases of broncho-pneumonia, five of measles, two of whooping-cough, and a certain amount of impetigo. The doctor lives next door and calls nearly every day, and the teeth are seen to every quarter by a dentist.

Conduct.—The boys appear to give very little trouble, and there is nothing to record apart from childish mischief.

General remarks.—The home has always been well managed, and now that boys are not being kept beyond eight years of age it is more usefully fulfilling the purpose for which it was established.

Acre Lane, London, S.W.

Visited.—4th June and 27th December, 1907.

Inmates.—Total number in school, 32; voluntary cases, 26; on licence, 0; absconders, 0.

Staff.—Superintendent, Mr. Dodds. Matron of the Home, Mrs. Stevens. Assistant matron, Miss Wigg.

Premises.—A pair of semi-detached villas, standing in their own grounds, within easy access to one of the Council's special

* Including two boys who are being transferred at once.

day schools. Certain new buildings are being erected, which will add to the accommodation for work and schooling.

Standards with awards.—The boys attend a special day school, where their education is carefully attended to on special lines.

Industrial training.—This is most promising, and includes tailoring, carpentry, and gardening. The boys help to make their own clothes, and many of them do very well in the carpenters' shop. One boy who had left was working on a farm in Wales.

Physical training, &c.—The playroom is very small, but an effort is made to give the children as much open air exercise as circumstances will permit.

Health.—This has been very good apart from several cases of ringworm.

Conduct.—The boys are managed with much tact and kindness, and appear to give very little trouble.

General remarks.—It was gratifying to find the boys so well looked after, despite drawbacks, and in many cases able to answer questions with some amount of intelligence.

Harborne.

Visited.—9th May, 27th February, 2nd March, and 8th January, 1907.

Inmates.—Total number in school, 129; voluntary cases, 1; on licence, 1; absconders, 0.

Staff.—Superintendent and matron, Mr. S. P. T. Kirk (c.) and Mrs. Kirk. There has been a change in the post of cook.

Premises.—A portion of land adjoining the west side of the school has been purchased and laid down as garden, orchard and poultry run.

Standards with awards. — Standard VII, 12, good; Standard VI, 18, good; Standard V, 21, good; Standard IV, 23, good; Standard III, 23, good; Standard II, 12, good; Standard I, 11, good; Preparatory, 7, good. The general award is good. Standard VII had been taking algebra.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, fairly good. Mental arithmetic, good. Geography, good. Object lessons and elementary science had been taken throughout. The development of intelligence is good.

Industrial training.—Drawing is good generally. A little attention to quality of line is required in Standard III. Some very good extra work is done by the seniors. Manual instruction shows general progress, special attention to precision and finish would be helpful. A large class of senior boys attends the Clarke Street, Birmingham, Metal Working Centre. No boys are keener on their work, and no class, in any school, receives more expertly-given technical instruction. Technical instruction is receiving steady attention in the tailoring and shoemaking shops. Junior boys do knitting and shirtmaking. Eighteen boys work in the

gardens, and two of these assist with the poultry. There is a very fair band. A large number of boys go to Welsh farmers, and they are visited yearly by the superintendent.

Physical training, &c.—The free and applied gymnastics are confined to a visit once a week by an instructor. This is not sufficient, and arrangements should be made for free gymnastics at least for a short time every day. The boys have some good swimmers amongst them, were second in the football league, and second in the cricket league. With such opportunities the school should be second to none.

Health.—There was a severe case of influenza in February, which made a good recovery. A boy with weak heart gave some anxiety, but is now getting stronger. Other cases which have received treatment have been of epilepsy, heat stroke, chicken-pox (one case), a few sore eyes, and skin troubles. There has been a good deal of influenza, but, with these exceptions, the general health has been good. There is a probability of a seaside outing this year.

Conduct.—There have been four cases of absconding, and a few boys have had to be corrected for pilfering and losing too many marks. The mark system appears to work well and to render severe measures unnecessary.

General remarks.—The numbers continue to decline. If there are cases in the neighbourhood which should be sent it is a great pity that a school so well equipped, and providing capital industrial training should suffer from lack of proper support.

Leeds.

Visited.—3rd June, 17th September, and 24th January, 1907.

Inmates.—Total number in school, 171; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. F. G. Dimery. The assistant teacher, Mr. J. Graham (c), left 28th February, 1907, and was succeeded by Mr. E. E. Porter, 16th April, 1907. Miss Line, assistant matron, left in March.

Premises.—There have been no structural alterations, but improved arrangements in regard to fire are being made, and various parts of the premises have been painted. All parts were clean and in order.

Standards with awards.—Standard VI, 28, good; Standard V, 32, good; Standard IV, 31, good; Standard III, 32, good; Standard II, 28, good; Standard I, 18, good; Preparatory, 2, newcomers. The general award is good. Several boys have been passed through two standards in the year. Reading needs some attention.

Class subjects.—Singing—both notations, good. Composition, good. Recitation, good. Mental arithmetic, good throughout. Geography, good. History readers have been in use. Good object lessons have been given, including lessons in first aid. Intelligence is well developed.

Industrial training.—Good work, generally, is being done in drawing, particularly in the lower standards. A little extra attention might be given to the Standard IV work. In both manual instruction and carpentry and joinery the previous good standard is being maintained. Technical instruction is receiving careful attention in the tailoring shop, while in the shoemaking shop the boys showed considerable intelligence in practical details. It is a radical weakness in the latter shop that the boys are fitted for country work only. The introduction of machinery is strongly recommended. The gardens afford good practical training for a large number of boys; this might be supplemented by regular courses of lessons in the theory of horticulture. The combination of kitchen and bakery is not a good arrangement. It would be of advantage if a master baker were placed in charge of the latter department. The band is well kept up. Disposals are good, but it might be possible to improve the arrangements for after supervision.

Physical training, &c.—Every boy goes through a good course of free exercises, and, as soon as he is equal to it, is taken on to applied gymnastics. All were well done, though the applied work might be improved in finish. Swimming is well taught, and, of a class of 20 boys taken in life-saving, every one gained the certificate. Cricket, football, and athletics, generally, are encouraged, and recreation is well provided for.

Health.—A mild case of appendicitis, a case of ophthalmia, six of influenza, and one or two accidents, make up the principal entries. The boys are clear-skinned and well set up. Their excellent health is due largely to the good medical supervision, and the care with which minor troubles are looked after, aided by a good dietary. The teeth receive attention periodically.

Conduct.—Conduct, as usual, has been good. A new boy attempted to abscond, but has since settled down. Another new boy set fire to the Christmas decorations. Pilfering, usually of fruit, and a few minor faults complete the list. Only 16 boys have failed to earn sufficient marks to entitle them to a special holiday.

General remarks.—The school maintains its high standard of efficiency, and is a credit to all who take an interest in its welfare.

York.

Visited.—31st May and 1st June, 1907.

Inmates.—Total number in school, 120; voluntary cases, 0; on licence, 26: absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs G. Busby. There has been a change of labour-master.

Premises.—The premises were clean throughout.

Standards with awards.—Standard VI, 14, very fair; Standard V, 17, good (just); Standard IV, 15, good; Standard III,

26, very fair; Standard II, 24, good; Standard I, 18, good; Preparatory, 5, new-comers. The general award is good. (Arithmetic is a little below this standard.)

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good throughout. Mental arithmetic, fair in II and III, very fair in V and VI, good in I and IV. Geography, fair in II, III and V, very fair in VI, good in I and IV. History readers have been used, and a useful series of object lessons has been given to the juniors. The development of intelligence is fairly good.

Industrial training.—Drawing is fairly good. In manual instruction a special effort should be made to train the boys to work accurately when working independently. Technical instruction is receiving improved attention in the tailors' shop, but nothing in this direction is being done in the shoe shop. The turnery department is first-rate. Three boys assist in the baking. The band, 40 strong, is doing very well indeed.

Physical training, &c.—The whole of the boys receive training in free gymnastics. It would be difficult to find smarter work in free gymnastics than that done by a large squad at the inspection. The work over the horse and on the parallel bars is also good. The school had its usual fortnight at Scarborough last summer. Weekly country rambles are taken, and there have been day outings and entertainments. Cricket is played. The football record for last season was 16 wins out of 19 matches against outside boys' club. Swimming receives attention.

Health.—The medical record shows one case of enteric, two of gastric catarrh, three of otorrhœa, one each of nephritis, cellulitis, bursitis of knee, and one each of impetigo, herpes, ringworm, and purpura. Two boys had influenza. One boy suffers from rupture (and has been provided with a truss), and another sustained a sprained ankle. There have also been a few boils, ulcers and abscesses.

Conduct.—Three cases of lying, one of filthy habits, and one of inciting to insubordination are the most serious offences recorded in an exceptionally short list.

General remarks.—The school gives evidence of a steady year's work in most departments. The one great weakness is the shoemakers' shop, and the time has come when the directors would do well to take into serious consideration the question of appointing a properly qualified instructor, both capable and willing to do justice to the boys and to the school.

Middlesbrough.

Visited.—19th June, 15th March, and 16th December, 1907.

Inmates.—Total number in school, 60; voluntary cases, 0; on licence, 7; absconders 0.

Staff.—Superintendent, Mr. A. Robertson. There have been changes in the posts of shoemaker, bandmaster, and laundress.

Premises.—There has been no change in the premises. A new oven and a carpenters' shop are to be built. The premises generally require improvement.

Standards with awards.—Standard VI, 10, good; Standard V, 5, very fair; Standard IV, 11, good; Standard III, 16, good; Standard II, 10, good; Standard I, 8, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, very fair. Recitation, good. Mental arithmetic, good in VI and IV, very fair in other standards. Geography, good. Good object lessons had been taken throughout. The development of intelligence is good.

Industrial training.—Drawing is only moderate; the work in the books is rough. Altogether, the impression is given that this subject is not as well treated as it might be. It is hoped that adequate arrangements may soon be made for giving woodwork instruction according to a well-arranged scheme. Technical instruction in the tailoring shop gives good promise. In both this and the shoemaking shop there is much to be gained by well-arranged schemes of lessons. This school is among the very best in the efficiency of its gardening. The giving of regular horticultural instruction is in contemplation. The band has improved this year. Several prizes have been gained for garden produce in the local shows.

Physical training, &c.—This can scarcely be beaten by any school. The free gymnastics, exercises over the horse and on the horizontal bar are excellent. Cricket and football matches are played with outside teams and the boys hold their own. The school went into camp at Marske-on-Sea.

Health.—There has been scarcely any sickness. The two boys who suffered from scalp disease have been cured. A few cases of abscess, ulcerated fingers, and herpes are noted. A hand injured by the cross-saw and a scald were the only two accidents, and neither was serious. The medical officer attends every week, and boys are sent to the dentist when their teeth trouble them. It is found valuable in many schools to have the teeth regularly inspected to save the teeth decaying beyond remedy.

Conduct.—Three boys have been punished for dishonesty, two for leaving school without permission, and three others for slight offences.

General remarks.—The boys are always pleasant to meet. This speaks highly for the influence under which they have been brought. Over 30 old boys attended the Christmas gathering. The Home is found most useful for placing lads in good situations.

Shibden.

Visited.—25th and 26th April and 22nd January, 1907.

Inmates.—Total number in school, 150; voluntary cases, 0; on licence, 14; absconders, 0.

Staff.—Superintendent the Very Rev. Canon Worthy. Mr. C. O'Kane (t. & c.), head schoolmaster, resigned 22nd December, 1906, and was succeeded by Mr. Michael Burke (Irish t. & c.), formerly first assistant. Mr. T. Gaffney (t. & c.), assistant schoolmaster, resigned 25th February, 1907. Mr. J. McGuinness (Irish t. & c.), was appointed first assistant schoolmaster 24th December, 1906, and Mr. Edward Byrne on 26th February, 1907. There has been a change of printer.

Premises.—The bottom yard has been re-asphalted. Hair mattresses have been supplied to the dormitories. A new platen machine has been added to the printer's plant. The premises were clean and in good order throughout.

Standards with awards.—Standard V, 25, very fair; Standard IV, 29, good; Standard III, 21, very fair; Standard II, 29, good; Standard I, 32, good; Preparatory, 5, new-comers. The general award is good, considering the changes in the staff and the short year. A number of boys have been advanced two standards within the year.

Class subjects.—Singing—very fair. This subject needs enlivening and refining. Mental arithmetic, good in I and IV, very fair in V, fair in II and III. Recitation, very fair in I and II, fairly good elsewhere. Geography, generally very fair. Composition, in V, fairly good as to matter, though spelling is somewhat weak. History readers have been used.

Industrial training.—Drawing is an improving subject. Manual instruction has been tentatively commenced. A really good syllabus should now be introduced. Technical instruction is receiving attention in the tailoring, shoemaking and printing shops, and would be all the better for being worked in accordance with carefully drawn schemes of lessons. This busy school also provides employment for boys in book binding, japanning, baking, and cooking and about the farm and garden.

Physical training, &c.—The whole school receives training in free gymnastics, and squads of the higher boys do work with apparatus. Many of these youngsters are very active, and both forms of training might be extended with every hope of good results. The football record for last season was 18 wins out of 20 matches against outside clubs, and cricket, six wins out of 10. Almost all of the boys are reported as being able to swim.

Health.—The medical record shows nothing more serious than a few cases of impetigo (from which two or three boys are at present suffering), and one each of tonsilitis, hæmoptysis, and palsy,—except that of a boy who was discharged on account of cardiac affection, and has since died. The boys visit a dentist as necessary. Mention must be made of the improved cleanliness of the boys.

Conduct.—The list of offences is short. There are recorded two cases of absconding, one of bad language, a few each of pilfering, smoking and disobedience.

General remarks.—This busy and enterprising school is not standing still. The introduction of manual instruction is a step in the right direction, and it should be developed in accordance with

a well-defined syllabus for the advantage of as many boys as possible. The system of technical instruction in the other shops might now be perfected.

Aberdeen.

Visited.—22nd April, 1st May and 21st October, 1907.

Inmates.—Total number in school, 116; voluntary cases, 0; on licence, 4; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. A. Napier. A bandmaster was appointed 1st January, 1907, who visits twice a week.

Premises.—A new cart shed has been built. The dormitories, corridors and some of the rooms have been distempered or papered. As the directors see their way the lavatory should be remodelled, and hot water laid on.

Standards with awards.—Standard VI, 20, good; Standard V, 17, good; Standard IV, 20, good; Standard III, 19, very fair; Standard II, 17, good; Standard I, 10, good; Preparatory, 9, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair, Composition, good. Recitation, good. Mental arithmetic, very fair in V, poor in III, good in other standards. Geography, good. The development of intelligence is good.

Industrial training.—Drawing has made quite a remarkable improvement, and still further progress may be anticipated. Manual instruction is doing well. Some of the special drawings are as fine as can be shown anywhere; it will not be difficult to make the whole approximate to these. In the practical bench work the leading boys might confidently be taken on to larger constructive work. The technical instruction of the tailoring shop would be improved by working to a definite scheme of lessons. The gardening boys gain good experience in market garden work. This might well be supplemented by regular horticultural lessons. There is a very good pipe band, and also a brass band. It is a pity that more do not go into army bands.

Physical training, &c.—The free gymnastics were good and taken by the whole school; the work was full of dash. The applied gymnastics were taken by a picked squad of 27, and were very creditable. Football and cricket are played in their respective seasons. A magic-lantern was presented to the school and has proved a great boon in winter evenings.

Health.—The general health seems to have been good. There were six cases of measles in November and December. A boy was treated in hospital for acute osteomegalitis; he is better, but unable to work. Several boys on admission have had ringworm and other skin troubles. It is advisable to chronicle all such ailments and defects in the medical book for future reference.

Conduct.—The most serious offences appear to have been two of stealing money. A few new boys have left the school without

leave, and one older boy attempted to abscond. Smoking, disobedience, pilfering and other slighter faults have needed correction.

General remarks.—The numbers are still so low as seriously to hamper the management of the school. The boys looked remarkably healthy, and in manner, bright and responsive.

Ayr.

Visited.—5th March, 20th February, and 18th December, 1907.

Inmates.—Total number in school, 98; voluntary cases, 0; on licence, 5; absconder, 1.

Staff.—Superintendent and matron, Mr. and Mrs. John Bell. Mr. H. Gold (ex p.t.), assistant teacher, left 15th October, 1906 and was succeeded by Mr. A. Brodie (ex p.t.), 22nd October, 1906.

Premises.—There have been no structural alterations, but the dormitories and corridors have been painted in attractive colours by the staff and boys. The staircase to the workshops is in need of renewal. The play-field shows signs of constant use, and is a most valuable acquisition from every point of view.

Standards with awards.—Standard VI, 10, good; Standard V, 15, very fair; Standard IV, 15, good; Standard III, 10, good; Standard II, 22, good; Standard I, 17, very fair; Preparatory, 9, new-comers and 2 backward. The general award is good. Efforts have been made to bring on backward boys, but the proportion in the lower standards is still considerable.

Class subjects.—Singing—sol-fa, very fair; the voices are not well produced. Composition, good, but spelling is weak in some cases. Mental arithmetic, good generally, not so good in V and IV. Recitation, good. Geography, very fair. Some object lessons have been given to the juniors. Intelligence is being fairly well developed.

Industrial training.—Few schools show poorer drawing. This matter should be rectified without delay. Manual instruction (including the special drawing) is very well taught. Two boys work at general joinery; the number might, with advantage, be increased. Technical instruction in tailoring and shoemaking receives very fair attention, and with improved system might soon be made really good. The gardens and greenhouses are thoroughly well kept, and yield good training for half a dozen boys. A fine set of new instruments has been provided for the band, which remains a credit to the school. As many as 40 boys receive a musical training sufficient to provide them with a career in after life. There are four boys in the Auxiliary Home.

Physical training, &c.—Free gymnastics are taken by the whole school. Club and dumb-bell exercises are taken in squads, and the training is now supplemented by some work on the parallel bars. This was done in promising style, but the movement should not be too hurried. The boys play football in capital form, and were unlucky in just failing to retain the Inspector's

Cup. 75 per cent. can swim. Games and books are provided for winter evenings.

Health.—A delicate boy died in August last of heart disease, after receiving every attention in the hospital and a convalescent home. A little boy at present in the school has Pott's disease of the spine, and is unlikely ever to be fit for industrial training. Apart from this there have been no ailments whatever, and on the day of inspection the boys appeared strikingly fit and well set up. This excellent record is largely due to (1) a first-rate dietary, (2) improved facilities for healthy recreation, and (3) the care with which small or delicate boys are looked after.

Conduct.—A boy absconded when sent out on a message, and so far has not been recovered. Three boys were implicated in a case of false dealing when delivering firewood ; one of these has given trouble in other ways. The few remaining entries relate to uncleanly habits, neglect of work, insubordination, mischief, and so forth. The general conduct has been satisfactory.

General remarks.—The school is clearly doing good and useful work, worthy of the fullest support. The Home is a valuable aid to the school, and will, it is hoped, be made even more use of in the future.

Dumfries.

Visited.—29th May, 18th February, and 19th December, 1907.

Inmates.—Total number in school, 90 ; voluntary cases, 5 ; on licence, 2 ; absconders, 0.

Staff.—Mr. R. Forrest (c,), superintendent, resigned 24th September, 1906, and was succeeded by Mr. W. A. Evans (ex. p.t.), who was dismissed 16th April, 1907. Mr. F. Gibson (t. and c.), was promoted superintendent 26th April, 1907. Miss M. Mitchell, matron, was succeeded by Miss J. M. Russell, 14th May, 1907. The head teachership is at present vacant. Mr. W. H. Dixon (ex. p.t.), assistant-teacher, resigned 28th February, 1907, and was succeeded by Mr. Thos. Anderson (ex. p.t.) 15th April, 1907. There have also been changes of bandmaster and drill-instructor, laundress and cook.

Premises.—The premises were somewhat cleaner than hitherto.

Standards with awards.—Standard VI, 8, fair ; Standard V, 12, fair ; Standard IV, 18, fair ; Standard III, 20, very fair (barely); Standard II, 17, very fair ; Standard I, 7, very fair ; Preparatory, 7 (two new-comers, five backward cases). The general award is fair.

Class subjects.—Singing—sol-fa, very fair. The voices are somewhat harsh. Composition, fair in VI, poor in V. Recitation, very fair in II, otherwise good. Mental arithmetic, very fair in I, otherwise barely fair. Geography, good in I and II ; otherwise poor. The development of intelligence is fair.

Industrial training.—Drawing is poor in the three lower standards, and only fair above. No school turns out worse work.

Technical instruction in the tailoring and shoemaking shops is only fair, but may be improved by better organisation and supervision. Five boys do turning and five netting. The latter is carried on in the schoolroom, to secure supervision, an undesirable arrangement.

Physical training, &c.—The boys gave displays of free gymnastics and marching, and a special squad did a little extended work, and exercises over the horse. Much remains to be done to bring the physical training up to the average of schools. Football is played. There was a day's trip last summer to Solway Firth; and there have been a number of lectures and entertainments given to the boys.

Health.—There are two cases of long-standing hernia, in both of which trusses are in use. There are also recorded one case each of bronchial pneumonia, bronchial asthma, lateral curvature of spine, inflammation of eyes and abscess, and two cases of glandular disease. A boy fractured his thigh in the gymnasium, and another fractured his forearm by falling in the dining hall. A serious case of congestion of the lungs is being treated in the public infirmary. It is to be hoped that more regard will be now paid to personal cleanliness.

Conduct.—The list of offences is neither long nor very serious. One boy attempted to abscond, three boys were discovered smoking and one in possession of tobacco. There were also a case each of striking another boy, bad language, pilfering and leaving the premises without leave.

General remarks.—This has been a disappointing school for a long time, and the past year has been exceptionally trying; but it is hoped that, under the improved financial conditions, a new and better era has begun. To bring the school up to the general average of other schools the best intelligence and earnest effort of all those in executive responsibility will be required.

Edinburgh Original.

Visited.—26th and 21st March, and 24th October, 1907.

Inmates.—Total number in school, 200; voluntary cases, 5; on licence, 16; absconders, 0.

Staff.—Superintendent, Mr. Alex. Russell (t. & c.). Miss Janet Brown left 31st May, 1906, and was succeeded by Mr. J. Buchanan (ex. p.t.), who left 13th October, 1906, and was succeeded by Mr. Alex. McIsaac (ex. p.t.), 15th October, 1906.

Premises.—There has been no change in the premises. It would be of advantage if the directors could see their way to putting in an engine to drive the machinery in the laundry. The detached hospital needs painting.

Standards with awards.—Standard VI, 45, good; Standard V, 23, good; Standard IV, 27, good; Standard III, 39, very fair; Standard II, 25, good; Standard I, 10, good; Preparatory, 27, new-comers and one mentally defective. The general award is good.

Class subjects.—Singing—sol-fa, good. Recitation, good. Composition, in V and VI, good. Geography, good. Mental arithmetic, very fair in III, good in other standards. History, in V and VI, good. Object lessons, in lower standards, good. The development of intelligence is good.

Industrial training.—The drawing is somewhat rough. Manual instruction has quickly developed into a really excellent department, upon which the school must be highly complimented. There is also a trade class of eight boys who are engaged in general joinery work about the premises. Technical instruction in the tailoring and shoemaking shops would be much improved by the use of a carefully-drawn scheme of lessons. A dozen boys gain experience in kitchen gardening. The brass band has been improved by the addition of reeds. The pipe band is a good one The superintendent has been assisted in looking up old boys by the three teachers.

Physical training, &c.—The free and applied gymnastics are as well organised as in any school in the country, and the work is smart. Every boy has two hours in the gymnasium per week. This year the games have been well organised under the two junior teachers; matches between industrial departments have been keenly fought. The great want is a proper playing field. The boys have been to several entertainments in their school and in Edinburgh.

Health.—One boy was discharged suffering from tubercular disease. There were two cases of pneumonia in May, both made good recoveries. One lad fractured his forearm in the gymnasium, and another sprained his wrist. The boys looked healthy on the day of inspection.

Conduct.—The conduct has given but little trouble. Few boys appear to have needed correction, and generally for slight offences, *e.g.*, impudence, smoking, carelessness, &c. But there are two cases of stealing,

General remarks.—The school showed to advantage. The improvement in physical culture and in the appearance of the boys is very marked.

Leith.

Visited.—26th and 18th March and 23rd October, 1907.

Inmates.—Total number in school, 129; voluntary cases, 6; on licence, 3; absconders, 0.

Staff.—Superintendent, Mr. A. S. Nelson. Mr. J. Leslie (certificated from July, 1906) left 31st October, 1906, and was succeeded by Mr. George Manson (ex p. t.). There has been a change in the post of shoemaker.

Premises.—There has been no change in the buildings.

Standards with awards.—Standard VI, 19, good; Standard V, 18, good; Standard IV, 19, good; Standard III, 28, very fair; Standard II, 20, good; Standard I, 8, very fair; Preparatory, 18, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair in V, good in VI. Recitation, very fair in III, V, and II, otherwise good. Geography, very fair in VI and II, good in other standards. Mental arithmetic, fair in III, very fair below and good above. History and nature knowledge had been taken by all the school as low as II. The development of intelligence is very fair.

Industrial training.—Drawing is improving, and with better finish would soon be really first-class. Manual instruction is a great success, upon which the school must be highly complimented. Technical instruction is promising in the tailoring shop, and in both this and the shoemaking shop it would be advanced by definite schemes of lessons. There is a very fair brass band. Its tone would be improved by some reed instruments.

Physical training, &c.—Free and applied gymnastics are alike good. The exercises over the horse and the rope climbing were particularly good. At football the school was in for the semi-final for the Inspectors Cup, but was beaten by the winners. At the Leith sports the school carried off five prizes.

Health.—The general health has been good. Three cases of measles occurred in June and made good recoveries. A lad was treated in hospital for disease of the ear, and another for abscess of the hip. The latter case may prove serious eventually. A boy was discharged in November as being imbecile.

Conduct.—The number of cases of misconduct is not great. Two lads stole respectively a watch and money when visiting friends. Smoking, fighting, disobedience and bullying have had to be checked, and, while bathing, some boys forgot themselves sufficiently to shout at some drunken people. The mark system is worked systematically. It would be as well to post the results every month in the schoolroom.

General remarks.—The general appearance of the school was favourable. In the schoolroom there is still a want of intelligent response. The need of a superior matron is more than ever evident with so many little boys.

Arbroath.

Visited.—3rd May and 29th November, 1907.

Inmates.—Total number in school, 33 boys ; voluntary cases, 2* boys 1* girl ; on licence, 0 ; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. W. Stewart. There have been no changes in the staff.

Premises.—There have been no alterations in the premises.

Standards with awards.—Standard VI, 4, fairly good ; Standard V, 4, fairly good ; Standard IV, 3, good ; Standard III, 2, very fair ; Standard II, 8, good ; Standard I, 7, good ; Preparatory, 3, new-comers. The general award is good.

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* Day scholars.

Class subjects.—Singing—by ear, good; several of the children sang solos very well. Mental arithmetic, very fair in I, II and V, but only poor elsewhere; this subject requires special attention. Recitation, good all through; in some standards above the average. Geography, very fair in III, V and VI, fair in I and II, poor in IV. Composition, in V and VI, good; in the latter standard exceptional intelligence was shown.

Industrial training.—Drawing is very fair; better finish would soon raise the quality of the work to the "good" standard, A few boys do handy jobs in the little carpenters' shop. All the boys work in the garden according to their ability. The garden is in first-rate order. All the boys do their own knitting.

Physical training, &c.—The whole school is receiving careful training in free gymnastics. Some good work was shown with dumb-bells and clubs, while the applied gymnastics are remarkably good, but a vaulting horse is needed to perfect this branch. Warm thanks are due to ex-Provost Colin Grant for kindly securing to the children the benefit of this training, in which he is well seconded by the visiting instructor. The boys have attended several entertainments provided by good friends of the school, and have themselves given a public entertainment to provide funds for a picnic.

Health.—Health has been remarkably good. Only three cases are recorded in the medical register—one each of influenza, diphtheria, and toothache. The boys look very fit and well.

Conduct.—The offences list is short. One case of smoking is recorded, and in another case a boy thought to benefit his friend by buying him some cigarettes; there were two cases of being absent without leave, one of impertinence, and a few of disobedience, quarrelsomeness, and mischief.

General remarks.—The brightness and good manners of the boys must impress any visitor, and show that good influences are at work, to which the boys heartily respond.

Dundee.

Visited.—18th April, 22nd March, 18th October, 1907.

Inmates.—Total number in school, 201; voluntary cases, 1*; on licence, 24; absconders, 0.

Staff.—Mr. Dickson retired from the post of superintendent 28th September, 1906, and was succeeded by Mr. J. Winchester. There has also been a change in the post of shoemaker.

Premises.—There has been no change in the premises. As the directors find opportunity the laundry arrangements should be brought up to date, and machinery installed.

Standards with awards.—Standard ex VI, 9, good; Standard VI, 25, good; Standard V, 23, good; Standard IV, 41, good; Standard III, 33, good; Standard II, 29, good; Standard I, 31, good; Preparatory, 9, good. The general award is good.

* This is a boy over 16 who has stayed on to pass the merit certificate examination.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good (above the average). Geography, good. History, good. Nature knowledge and hygiene, good. Grammar, good. Mental arithmetic, good generally, rather weak in III. The development of intelligence is good.

Industrial training.—Good work is being done in drawing. In the practical bench work of manual instruction there is room for improvement. Technical instruction has received good attention in the tailors' shop, and it is hoped that the same may soon be said of the shoemaking and gardening sections. The first requirement in these departments would seem to be definite schemes of lessons. There is a brass band besides a pipe band; both being useful auxiliaries.

Physical training, &c.—The whole school went through a few physical exercises on the Swiss system and a picked squad gave a display with Indian clubs. The picked squad again carried off the shield in Dundee for applied gymnastics. This is a fine performance, and it is only to be regretted that the benefit of the training is not extended to more boys. Football is played and the general life of the school has been carried on as reported in previous years.

Health.—The general health appears to have been good. There was a case of scarlet fever which fortunately did not spread. A boy was operated on for tubercular glands, two for rupture, and one for a cystic growth at the infirmary. One boy is still in the infirmary with aural polypus.

Conduct.—The conduct has not given much trouble. A boy was punished for inciting others to abscond, another for absconding from the "Boys' Home," stealing clothing, and going off with his wages. Other offences have been stealing, disobedience, laziness, smoking, &c.

General remarks.—Mr. Dickson, after many years' service, retired in the autumn. He still keeps in touch with the school as its secretary, and it must be a satisfaction to him to know that the school is now in good hands and likely to still further advance.

Mossbank.

Visited.—15th April and 24th May, 1907.

Inmates.—Total number in school, 375; voluntary cases, 0; on licence, 30; absconders, 0.

Staff.—Superintendent, Mr. W. Smith. The schoolmaster, Mr. John Conly (t. and c.) left 31st July, 1906, and was succeeded by Mr. F. W. Craig (t. and c.) 1st October, 1906. Mr. J. Newall (ex p.t.) left 31st August, 1906, and was succeeded by Mr. J. W. Turner (Art. 51) 1st September, 1906. The bandmaster, Mr. Howell, died 14th January, 1907, and Mr. Blench has succeeded him.

Premises.—All parts of the premises were clean and in order. The old 3-inch water-pipe has been replaced by a 6-inch pipe.

This gives a greater pressure in case of fire. A new set of fire appliances has been provided. Three-and-a-half acres of moss land are being reclaimed.

Standards with awards. — Standard VI, 26, good; Standard V, 47, good; Standard IV, 75, good; Standard III, 76, good; Standard II, 81, good; Standard I, 52, good; Preparatory, 10, making good progress. The general award is good. A creditable proportion of boys have passed through two standards in the year, and a good foundation has been laid at the bottom of the school.

Class subjects. — Singing — sol-fa, in two groups, good. Special attention is given to voice training. Composition, much improved. This subject might be taken throughout. Mental arithmetic, good. Geography, specially good. Recitation, good. A good scheme of object lessons has been introduced. Intelligence is being well developed.

Industrial training.—Good, steady work has been put in at drawing, and the subject is likely to advance to a really good position. In manual instruction special attention should be paid to accuracy in elementary operations. Technical instruction could readily be made more effective in the tailoring and shoemaking shops, and might with advantage be formally introduced into the smiths' shop and gardening. There are no better kept gardens anywhere. The garden boys are undoubtedly receiving good practical training. On the farm, the exceptional cleanliness of the stock is a pleasing feature. The baker has given some technical instruction to his boys. There is a capital pipe band, and under the new instructor the brass and reed band would, with new instruments, soon become one of the very best. Disposal receives attention.

Physical training, &c.—This is capably organised. Too much is not attempted, but what is done is done thoroughly. The marching is probably not surpassed in any school, and the free and applied gymnastics are alike good. Swimming is taught to all, and football and cricket are played with success. Two days a week in July are devoted to route-marching. The school is well off for indoor recreation, including various entertainments.

Health.—A new boy, who suffered from St. Vitus dance, died in the infirmary in June. Among the few ailments noted are single cases of fistula and bronchitis, and two of cellulitis. The general health has been remarkably good.

Conduct.—The year has been a quiet one in this respect. The only offences of a serious nature have been a case or two of absconding on the part of new boys, who have now settled down. Smoking and petty misconduct complete the list. The introduction of a mark system is found an effective aid in maintaining discipline.

General remarks.—The school has again earned a good report. Features which may be specially mentioned are (1) the much improved schoolroom work, (2) the physical training, and (3) the frank and open bearing of the boys.

Glasgow R.C. Orphanage.

Visited.—22nd and 25th May, 1907.

Inmates.—Total number in school, 198* ; voluntary cases, 0 ; on licence, 21 ; absconders, 2†.

Staff.—Superintendent, Mr. A. Mathieson. Mr. T. E. Gilmore, head teacher (t. & c.), resigned 14th July, 1906, and was succeeded by Mr. A. Finnigan (t. & c.), 1st August, 1906. Mr. M. Leahy (Irish c.) assistant-teacher, resigned 30th June, 1906, and was succeeded by Mr. T. E. Bateman, 1st July, 1906. Mr. S. Glancey, second assistant-teacher, resigned 18th July, 1906, and was succeeded by Mr. J. Cashin (Irish t. & c.), 25th August, 1906. There have also been changes of shoemaker, laundress and nurse.

Premises.—A gas-engine, with suction plant, has been installed. A new set of band instruments has been obtained. 2½ acres of land have been brought into kitchen-garden cultivation. The premises were thoroughly clean throughout.

Standards with awards.—Standard VI, 17, good (just) ; Standard V, 17, very fair ; Standard IV, 27, good ; Standard III, 27, good (just) ; Standard II, 44, very fair ; Standard I, 32, good ; Preparatory, 24‡, mostly new-comers. The general award just reaches good.

Class subjects.—Singing—sol-fa, very fair as to songs, but otherwise neglected. Composition, in V and VI, very fair. Recitation, very fair in II and III, good elsewhere. Mental arithmetic, good in VI, very fair in I, fair in II and V, poor in III and IV. Geography, good generally. History readers have been used, and object lessons on common things given to the juniors. The development of intelligence is fairly good.

Industrial training.—Neatness and finish are required in drawing. The manual instruction drawing is good, and much good practical work has been done during the year. Technical instruction in tailoring and shoemaking has received much attention. Technical instruction might also be extended to the boys engaged in the bakery and garden. The band merits a word of commendation.

Physical training, &c.—Senior and junior squads gave very good displays of Swedish physical drill, but this might well be supplemented by other forms of free gymnastics, club drill and work over the horse. It would be as well too for the boys to have light gymnastic shoes. The school spent a month at Blairgowrie in July and August. Last season's football results were 14 wins in 20 matches. Mr. James Coats, of Paisley, has kindly made a gift to the school of a bookcase and 170 library books.

Health.—A boy died from meningitis in April, 1906, and another from pneumonia in December. There have also been seven other cases of pneumonia, one each of appendicitis, quinsy,

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* Including two whose terms have expired. † One abducted.
‡ The majority of these should be presented in Standard II next year.

enlarged glands, epilepsy, erysipelas, ophthalmia, and abscess; two of scarlet fever and three of eczema; two cases of fractured arms (one at football and one from a fall in the school yard), one of diseased bone of the thumb, and a few minor wounds. With the exception of a number of cases of sore ears the boys looked well on the day of inspection. A trained nurse will soon be installed on the permanent staff.

Conduct.—Smoking has given some amount of trouble, no less than 25 cases being recorded. There have also been two cases of absconding, four of stealing, two of indecent conduct, three of bad language, three of lying, two of pilfering, seven of destroying property, and four of fighting. Five cases entered as "bullying" on investigation hardly deserve so strong a title. Certain cases entered in the schoolroom offences book might more properly have been entered in the superintendent's book.

General remarks.—The school must be congratulated on the advance in industrial work. Considering that there has been a complete change of schoolroom staff during the year, the standard reached is creditable, but special attention to arithmetic is required.

Slatefield.

Visited.—25th February and 28th March, 1907.

Inmates.—Total number in school, 150; voluntary cases, 0; on licence, 18; absconders, 2*.

Staff.—Superintendent and matron, Mr. and Mrs. C. J. Brindle. The third assistant, Mr. J. Strain, left 23rd June, 1906, and was succeeded 1st August, 1906, by Mr. W. J. Burdess (ex p.t.). A visiting bandmaster has been added to the staff.

Premises.—Several minor improvements have been effected, including a new hot water supply. The kitchen and lavatory arrangements and the outside offices are among the least satisfactory parts of the premises. The dormitory closets require ventilation.

Standards with awards.—Standard VI, 17, good; Standard V, 20, good; Standard IV, 30, good; Standard III, 23, good; Standard II, 26, good; Standard I, 18, good; Preparatory, 15, backward. The general award is good, but special attention to backward boys is desirable.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair. This should be taught throughout. Mental arithmetic, good. Geography, good. Recitation, good. History is taken above II, and the elements of grammar taught. Object lessons have been given to all, and some physiology to VI and V. Intelligence is being well developed.

Industrial training.—The drawing this year is nothing short of a revolution. Manual instruction is good. The drawing for this subject is specially good. More boys might well be

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* Mentioned in last year's report.

entered. In both the tailoring and shoemaking shops the technical instruction is first-rate. Both of these shops rank among the best in the country. A trade department in joinery and cabinet-making is attached to the manual instruction shop. Under its new instructor, the band should become efficient in time. The attention of the managers may well be directed to devising more effective means of disposal.

Physical training, &c.—Drill has fallen into abeyance lately owing to the illness of the superintendent. The month's fruit-picking camp at Blairgowrie appears to have been a great success. Football is the only outdoor game these lads care about. Indoors they have a fairly good library, and the superintendent gives magic-lantern entertainments from time to time.

Health.—Only nine cases have called for medical treatment since last inspection, three of these—cases of enteric, periostitis, and scarlet fever respectively—were removed to the hospital. There was also a case of acute pneumonia, and one of bronchitis, otherwise, thanks to the care taken to feed up delicate boys, there have been no ailments of a serious character.

Conduct.—A persistent absconder, who has spent about a year in all away from the school, absconded twice since last inspection. It might be well to transfer him to another school. There was also a case of stealing money. The remaining offences consist of deceit, persistent laziness, smoking, and ordinary boyish misdemeanour. The introduction of a mark system is recommended.

General remarks.—Good work has been done here in most departments during the year. But the desirability of removing from the present site is none the less urgent. The chief weakness is in disposal. It is lamentable to find that practically every boy drifts back to his old haunts.

Perth Fechney.

Visited.—30th April and 25th March, 1907.

Inmates.—Total number in school, 135 ; voluntary cases, 7 ; on licence, 2 ; absconders, 0.

Staff.—Superintendent, Mr. James Hutchison. Mr. A. Primrose (t. & c.), head schoolmaster, resigned 30th September, 1906, and was succeeded by Mr. Thos. T. Rennie (ex p.t.), assistant-teacher, 1st October, 1906. Mr. C. B. Mapstone (c.) was appointed assistant-teacher 16th October, 1906. There has been a change of bandmaster, and Mr. Joseph Mallock was appointed visiting manual instructor on 15th October, 1906.

Premises.—A manual instruction room has been provided and fitted up ; a new bathroom for the sick ward, night-shirts, tooth-brushes, a separate towel for each boy, and shorts for the juniors have been supplied. The place was scrupulously clean throughout.

Standards with awards.—Standard VI, 31, fairly good ; Standard V, 13, very fair ; Standard IV, 23, good ; Standard III,

26, very fair; Standard II, 24, good; Standard I, 19, good; Preparatory, 6, mostly new-comers. The general award just reaches good, though arithmetic requires strengthening.

Class subjects.—Singing—sol-fa, good; extra attention might be paid to voice-production. Mental arithmetic, good in VI, very fair in I and II, fair elsewhere. Recitation, very fair in II, good elsewhere. Geography, good in I and II, fair in V and VI, but poor elsewhere. Composition, very fair in V, good in VI. History readers have been used, and object lessons given to the three lower standards. The development of intelligence might receive greater attention in some of the standards.

Industrial training.—Drawing shows general improvement; better finish, especially in the mechanical drawing, is now the greatest requirement. Solid geometry should be taught to Standard VI. Manual instruction has been commenced; special care should be taken to make this work thoroughly practical. Technical instruction has improved in the tailors' shop, but it requires better attention in the shoemakers' shop. Fifteen boys receive good training in the well-kept gardens and greenhouses. A regular system of technical instruction might well be formulated in connection with this department. The band gave a spirited performance, but perhaps a little more might be done in the cultivation of expression.

Physical training, &c.—A smart display was given of military marching drill with arms, and Indian club practice. The display of free gymnastics was also good, though limited in extent; but the applied gymnastics will bear much improvement. It would be a good thing if the whole of the physical training could be put under the resident physical instructor, who already takes the first-mentioned work. Good use is made of the swimming bath, and most of the boys can swim. At cricket the school won six out of nine matches. There were some treats, &c. in the summer, including a good holiday for all at Glenfarg.

Health.—In March, 1906, there were 13 cases of measles. The record also shows two cases of typhoid, one of pneumonia, one of influenza, five of inflamed glands, three of phlyctenula conjunctivitis, and one each of erysipelas, periostitis of jaw, eczema, abscess of scalp and mastoid. The quality of the bread has been improved, extra butchers' meat is given, and an additional cow has been purchased.

Conduct.—The list of offences is not long. One case of absconding is recorded, eight of absence without leave, ten of smoking, and a few of fighting, pilfering and lying.

General remarks.—An earnest effort has been made to improve the quality of the schoolroom work, and considerable success has been attained. The first-rate importance of arithmetic, especially mental arithmetic, requires to be steadily borne in mind. In other departments there is much upon which Fechney must be congratulated. It is one of those busy, practical schools, eminently calculated to turn out *men*.

Greenock.

Visited.—24th April, 22nd and 23rd February, and 26th October, 1907.

Inmates.—Total number in school, 134; voluntary cases, 0; on licence, 3; absconders, 0.

Staff.—Superintendent, Mr. D. Tudhope (c.). Mr. A. Smith (ex p.t.) left 3rd March, 1906, and was succeeded by Mr. J. McKillop (Art. 68) 9th April, 1906. There has been a change of laundress.

Premises.—The boiler chamber has been made fireproof; the premises are unaltered otherwise. The cleanliness throughout is creditable.

Standards with awards.—Standard VI, 21, good; Standard V, 18, good; Standard IV, 18, very fair; Standard III, 17, very fair; Standard II, 14, fair; Standard I, 17, very fair; Preparatory, 30, backward. The general award cannot be regarded as more than fair, in view of the large number of backward boys at the lower end of the school. No boy should be in the preparatory class for more than a year.

Class subjects.—Singing—elementary sol-fa, good. Composition, very fair. This should be taught throughout. Mental arithmetic, good in VI and IV, very fair generally. Recitation, good. Geography, good in VI and V, fair in IV and below. A few object lessons have been given. Intelligence is developing on very fair lines.

Industrial training.—Drawing is very fair above Standard II, but is indifferent in I and II. The teacher in charge of these classes hardly realises the possibilities of the subject. The new instructor is doing very well indeed in manual instruction. There is a good grip on technical instruction in the shoe shop. Technical instruction should be introduced in the brushmaking shop. Disposal does not receive proper attention.

Physical training, &c.—Free exercises are taken by all, and applied gymnastics by a limited number. The displays, under the direction of a visiting sergeant and the assistant teacher respectively, were distinctly good. Football is played on Prospect Hill, and swimming is indulged in when practicable. Sufficient funds were raised by a concert organised by the superintendent, to give the boys a fortnight's holiday in Bute. The school has just been presented with a library of books—a generous gift which will be much appreciated.

Health.—A boy died suddenly about a fortnight ago. At the inquest death was attributed to acute congestion of the lungs. There have been two cases of pneumonia, one of which is still in the infirmary; one of scarlet fever, one of hæmorrhage, several of abscess, and some of ringworm and other skin disease. The teeth do not receive the special attention usual in schools of the kind.

Conduct.—Two boys absconded, but were speedily brought back. Other entries include neglect of work, disobedience, destruction of property, deceit, quarrelsomeness and dirty habits

One boy allowed out to attend the fair, pawned his father's clothes. Another, of low type, endeavoured to spread ringworm through the school, while a few others have been generally troublesome. A mark system is fairly successful.

General Remarks.—The position of this school was specially brought to the notice of the Secretary for Scotland with the result that the managers have strengthened the teaching staff and effected other improvements.

Paisley.

Visited.—26th and 22nd February and 17th December, 1907.

Inmates.—Total number in school, 115; voluntary cases, 2; on licence, 5; absconders, 0.

Staff.—The superintendent and matron, Mr. and Mrs. J. Winchester (both t. & c.), left 28th September, 1906, and were succeeded on that date by Mr. R. Forrest (c.), and Mrs. Forrest. Mrs. Barclay had acted as matron for the first half of 1906. Mr. G. McIvor (ex p.t.) left 2nd September, 1906.

Premises.—There have been no structural alterations, but the dormitory floors have been stained and other minor improvements effected.

Standards with awards.—Standard VI, 21, very fair; Standard V, 16, very fair; Standard IV, 14, very fair; Standard III. 18, very fair; Standard II, 16, very fair; Standard I, 19, very fair; Preparatory, 9, backward. The general award in these subjects is very fair. It should be the exception to retain a boy in the same standard for more than a year. Special attention should be given to backward boys and to handwriting.

Class subjects.—Singing—sol-fa, very fair. The introduction of old notation is recommended. Composition, very fair. Mental arithmetic, good in VI and IV, very fair otherwise. Recitation, good on the whole. Geography, fair in IV and III, very fair otherwise. Object lessons are given, and history readers are in use. The development of intelligence is very fair.

Industrial training.—Drawing is very fair up to Standard IV, but requires extra attention, particularly in Geometry in V and VI. The head teacher may be relied upon to deal with these subjects very effectively in the near future. Manual instruction is a success; some of the work indeed deserves special praise. The tailoring and shoemaking instructors may be encouraged to properly organise the technical instruction in their shops, and the boys will doubtless give hearty response. Eight boys who do advanced woodworking also work in the garden. The band keeps up its reputation as one of the best in any industrial school. Disposal needs more attention than hitherto it has received.

Physical training, &c.—Free gymnastics are taken regularly by the whole school, and a squad went through some work on the

parallel bars and over the horse in a style which, with a little extra finish would be first-rate. Every boy is taught swimming, and an expert friend has given some valuable lessons in life-saving. Football is played, and a very fair library is available for winter evenings. Through the generosity of a lady friend a number of the boys spent an enjoyable fortnight's holiday at Dunoon.

Health.—The most serious case since last inspection was one of pneumonia. There have been others of high temperature and a good many colds and chilblains, and one boy broke his arm in the laundry. There is here no regular stripped examination, such as is found almost universally of high value as a safeguard.

Conduct.—The chief trouble has been caused by absconding. Of this there have been several cases. One boy ran away twice. There have been other attempts, and various instances of being out of bounds and of breaking leave. Smoking, destroying property, bringing false charges against an officer, neglect of work and general insubordination, are among other offences noted; and the schoolroom list contains a number of entries. The introduction of a mark system is strongly recommended.

General remarks.—There appears to be now a definite prospect that the much-desired move will become an accomplished fact. Meanwhile the school is pegging along fairly well in its old surroundings.

INDUSTRIAL SCHOOLS—NAUTICAL SCHOOLS.

"Clio."

Visited.—15th May and 13th September, 1907.

Inmates.—Total number in school, 213; voluntary cases, 10; on licence, 1; absconders, 0.

Staff. — Captain-Superintendent, F. G. Langdon, R.N. Mr. Booth, chief officer, left 30th November, 1906, and was succeeded by Mr. Geo. Tremayne on 1st December, 1906. The first assistant schoolmaster, Mr Robinson (c.), left 30th June, 1906, and was succeeded by Mr. H. C. Philp (ex p.t.), who left 31st October. Mr. W. Gastall (c.) joined 1st January, 1907. Mr. W. Luxton (ex p.t.) left 15th December, 1906. His post was filled by Mr. J. Evans (ex p.t.) 1st January, 1907. Mr. Roach, cook, died in January, and Mr. W. Dickenson has succeeded him. The gunnery instructor left 31st March, 1907, and his place is vacant. The staff has been reduced by two seamen instructors, carpenter, and swimming instructor.

Premises.—Several improvements have been effected. The schoolroom work is now done on the upper deck; the space occupied by the lamp room has been fitted up for manual instruction, and a new store room has ben made for school gear. The ship has been presented with a large globe and some nautical

instruments. Cleanliness and order prevail everywhere. Encouraged by small rewards, the arrangement of the messes is uncommonly neat.

Standards with awards.—Starboard watch and VI. and I of port watch. Standard VI, 31, good; Standard V, 14, very fair; Standard IV, 23, very fair; Standard III, 27, very fair; Standard II, 16, good; Standard I, 18, mostly new-comers. Numerous changes in staff have handicapped the school work. The general award is very fair, but should easily be good next year.

Class subjects.—Singing—sol-fa, good. Composition, very fair. Recitation, good. Mental arithmetic, good in VI, IV and II, very fair in VI and I, fair in III. Geography, good. History readers have been used in all standards. Good object and science lessons have been given to all. Intelligence is well developed.

Industrial training.—Drawing is good in Standards I and II, and very fair elsewhere. No formal technical instruction is given in connection with the tailoring and shoemaking, but perhaps it might be possible to do something in this direction in the future. The seamanship classes are disorganised at present, but even so, the boys showed a good deal of intelligence in the subject. When the chief officer can get his classes properly arranged the boys may be expected to show up very well indeed. Eight boys assist the ship's carpenter. The chief officer's flag-signalling class acquitted itself with credit. Mention must also be made of the recreative classes taken by the captain in carving, and by Mrs. Langdon in knitting, &c. The band, though small, might easily be more ambitious, for it is thoroughly well grounded.

Physical training, &c.—Physical drill on Swedish lines is taken daily by all, under the direction of the chief officer. In finish this is below the level of the best shore schools, but of its beneficial effect there can be no question. Even more striking is the extent to which many of the boys develop during the annual camp at Llandudno. Cricket and football are played at least twice a week; and the boys get unique opportunities of learning to handle the rifle. Frequent concerts and lantern entertainments are arranged for winter evenings, and there is a good library.

Health.—One boy got caught in the boat falls when lowering a boat, and broke his leg. He was removed to the Bangor Infirmary an cured and has since gone to sea. The general health has been good, though there have been a number of small cases, chiefly skin troubles. A boy, at present deaf through polypi in both ears, is to undergo an operation. A boy fell overboard in February, but was rescued by the chief officer, who received the Humane Society's medal.

Conduct.—A boy of roving tendencies endeavoured to run away, and to take another with him, but both were brought back. One or two boys have been frequently in trouble in various ways. Casting a boat adrift was an offence in which five were implicated. Pilfering food, neglect of duty, being in forbidden quarters, a single case of bullying, and several of smoking—these are the principal offences recorded. There has been nothing of a really serious nature, in spite of the many changes of staff, and the general tone is thoroughly sound.

General remarks.—The year has not been without its difficulties, and the good work done is a matter for genuine congratulation.

"Mount Edgcumbe."

Visited.—12th July and 2nd August, 1907.

Inmates.—Total number in school, 207; voluntary cases, 7; on licence, 12; absconders, 0.

Staff.—Captain - Superintendent, J. G. Bickford, F.R.G.S., F.R. Met. Soc. There have been changes of cook and gymnastic instructor.

Premises.—The ship was sweet and clean in every part, and the tender "Goshawk" a model of smartness.

Standards with awards.—Standard VI, 14, good; Standard V. 15, good; Standard IV, 35, good; Standard III, 31, good; Standard II, 27, good; Standard I, 20, good; Preparatory, 2, newcomers. The general award is good. Standard III barely reaches this level.

Class subjects.—Singing—a promising beginning has been made in staff notation. Composition, very fair. Recitation, good in VI, II and I, very fair in III. Mental arithmetic, good. Geography, good generally, very fair in IV and III. History readers have been used to good purpose, and some useful object lessons have been given. Intelligence is well developed.

Industrial training.—This school is amongst the best in drawing. Some excellent higher work, too, has been done. Four boys do ship's carpentry. It would be good if systems of technical instruction lessons could be arranged in connection with the tailoring and shoemaking. The 15 boys who do chip-carving, repousé work, and rug and lacemaking as recreative subjects, prove themselves well worth the extra attention which is paid them. Some of these boys show more than ordinary ability in drawing and designing. All boys receive instruction in seamanship, which reaches its culminating point on the tender "Goshawk," where all-round practical seamanship of the highest order is taught. The small band shows improvement.

Physical training, &c.—Free gymnastics are taken daily, and a visiting instructor takes squads twice a week in Swedish drill and applied gymnastics. The displays given were most creditable. The boys are landed as often as practicable for cricket and football, and have outings and treats from time to time, besides taking part in the local regattas.

Health.—For some years past the health has been remarkably good, a result due in part to the excellent dietary. Apart from an accident or two, and a few trifling ailments, there has been, this year, no illness to note, except the case of a boy suffering from phthisis, and who died in the Cottage Hospital a few days after the inspection. The teeth are attended to at the Dental Hospital, and the eyes at the Eye Infirmary, where boys are fitted with glasses when necessary.

Conduct.—A boy recalled from licence attempted to upset the discipline, and incited three boys to abscond; one of these has given trouble in other ways. Bullying has had to be put down more than once, and several boys are addicted to smoking. Three boys attempted to break into a storeroom, and a few have been corrected for pilfering, impertinence, and other boyish faults. The general conduct has, however, been good. The system of marks and badges is found to be of considerable help.

General remarks.—It is gratifying to find a few more boys enjoying the advantages of this admirable institution than was the case last year, and it is to be hoped the numbers on board will soon reach the full complement.

"Wellesley."

Visited.—21st and 11th March and 17th December, 1907.

Inmates.—Total number in school, 295*; voluntary cases, 6; on licence, 1; absconders, 1.

Staff.—Captain-Superintendent, H. Baynham, R.N., F.R.A.S. There have been changes in the posts of band-sergeant and assistant-cook.

Premises.—The ship was sweet and clean.

Standards with awards.—Starboard watch all Standards I and II, and half of Standard VI. Standard VI, 22, very fair; Standard V, 29, very fair; Standard IV, 38, very fair; Standard III, 31, good; Standard II, 38, good; Standard I, 11, poor; Preparatory, 2, poor. The general award is scarcely very fair.

Class subjects.—Singing—sol-fa, good. Composition, very fair. Recitation, very fair generally. Mental arithmetic, good generally, but tables in I were scarcely known. Geography, good. The development of intelligence is very fair.

Industrial training.—Drawing has received improved attention, but still requires finish. There is no regular technical instruction in the tailoring, shoemaking and plumbing shops. Schemes of instruction should be drawn up forthwith. The seamanship instruction wants life and thoroughness, and should also be given according to some clearly arranged scheme of work. A good proportion of the boys go to sea on leaving the ship, but it must be borne in mind that there must inevitably be a certain number who will not or cannot adopt a seafaring life, and provision should be made accordingly. The band is a good one. All boys above Standard III go through a course of ambulance instruction.

Physical training, &c.—The marching is good, and the exercises with rifles and free gymnastics were spirited. The boys land weekly to use the playing field. A number of entertainments have been attended.

Health.—There was a death in July from measles and congestion of the lungs. A case of German measles, four of

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* Including 98 Poor Law cases.

scarlet fever, and two of chicken-pox, have been treated during the year. Four boys were operated on for varicose veins with success. The remainder of the ailments have been shingles, sore throats, tonsilitis, rheumatism, and skin affections. There have been a number of ringworm cases all through the year. Every boy has his teeth examined twice a year.

Conduct.—The general conduct has been good. One case of absconding is recorded, and a few boys have given trouble by stealing, smoking, bullying, and overstaying leave. There is a good mark system. 183 boys have accounts in the penny bank of the ship.

General remarks.—The schoolroom needs very careful attention. Books badly corrected or corrections unheeded are far too numerous. The industrial training needs careful overhauling. In other respects the ship showed to considerable advantage.

National Nautical (Portishead).

Visited.—15th and 17th April, and 24th July, 1907.

Inmates.—Total number in school, 324; voluntary cases, 38; on licence, 1; absconders, 0.

Staff.—Captain-Superintendent, Captain W. E. Still, R.N. Mr. F. W. Smith (t. & c.) left 3rd November, 1906, and was succeeded by Mr. J. Chadwick (c.) 4th January, 1907. The gunnery instructor died July, 1906, and another was appointed in his place.

Premises.—An addition is being made to the sickroom. A lodge is being built to accommodate one of the staff. Part of the playfield is being levelled. All parts were clean and in order. The paint has, in places, been laid on very sparingly.

Standards with awards.—Standard VI, 31, good; Standard V, 34, very fair (just); Standard IV, 22, good; Standard III, 32, very fair; Standard II, 23, good; Standard I, 23, good; Preparatory, 4, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, very fair in the three upper standards, fair in the lower. Recitation, very fair in I and IV, good elsewhere. Geography, good throughout. Composition, fair in V, good in VI. History readers have been used. Five of the "Allice Cole's" scholarships were awarded this year to boys of this school.

Industrial training.—In a majority of the standards the drawing is good; better finish, especially in the mechanical drawing, would be of advantage. A start has been made in manual instruction with 200 boys. Few schools have made a better commencement, and this should be an encouragement to largely increase the number of boys under instruction. No technical instruction is given in the tailoring and shoemaking shops, but it is hoped that arrangements may soon be made to remedy this. All the standards receive instruction in the theory of navigation, according to a definite syllabus. The boys have memorized their work very well; but its reproduction in their own language

would serve to show whether they really understood it, and also assist in their clear understanding of nautical names and phrases. In the seamanship class the boys were slow in specifying common items. The band has improved.

Physical training, &c.—Every boy is now put through a course of physical training. The course is good in design and execution. The majority of new boys are singularly wanting in muscular development. The Football Cup was won, and cricket matches are now in full swing. The school just missed winning the swimming shield. Entertainments have been given by the boys in winter time. Two boats are now used for teaching boys to row.

Health.—There was a death in February from pneumonia, and another in July from appendicitis and other complications. Another case of pneumonia, and one of congestion of the lung, made good recoveries. Two boys were discharged as unfit for the training. There have been some cases of rheumatism, shingles, swollen glands, eczema and other skin troubles. Four cases of ophthalmia are reported, and one of corneal abscess. The dentist visits every month and overlooks all the boys' teeth.

Conduct.—The chief offences have been stealing, bullying, insolence to a police officer, and absconding. There has been a certain amount of smoking, and other common faults have needed correction. The general tone of the school appears to be good.

General remarks.—The year has been one of considerable progress. The improvement in the shops and physical training is marked. But there should be no hesitation in striking out on new lines, curtailing the training in the tailors' and shoemakers' shops and starting a mechanics' shop, as suggested in last year's report.

"Southampton."

Visited.—26th June and 3rd October 1907.

Inmates.—Total number in school, 194; voluntary cases, 41; on licence, 1; absconders, 0.

Staff.—The Captain-Superintendent, Commander F. S. Wheeler, R.N., left 31st January, 1907, and was succeeded 1st February, 1907, by Commander H. J. de W. Kitcat, R.N. Mr. A. Thompson succeeded Mr. Bennett as chief officer, 22nd April, 1907. Mr. W. C. Hughes (t. & c.), assistant schoolmaster, left 7th March, 1907, and was replaced by Mr. J. S. Scougall (t. & c.), 13th March, 1907. There has been a change of cook.

Premises.—The ship has been thoroughly overhauled and made sweet and sanitary in every part. The holds have been cleared out and timbers scraped and treated with creosote. The head has been remodelled, and various minor improvements have been effected.

Standards with awards.—Standard VI, 36, good; Standard V, 40, very fair; Standard IV, 38, good; Standard III, 31, very fair; Standard II, 30, good; Standard I, 7, good; Preparatory, 2, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Recitation, good. Mental arithmetic, good generally, very fair in V, fair in III. Geography, good generally, very fair in IV and III. History readers have been in use. The seniors have been taught elementary navigation, and the juniors have had some useful object lessons. Intelligence is well developed.

Industrial training.—Scale drawing requires special attention, and neatness and finish in all grades of the drawing would prove of advantage. Manual instruction has been commenced, and is well worthy of encouragement. The equipment of tools needs completing. Tailoring and shoemaking are carried on for purposes of the boys' outfitting. It may be possible to arrange for technical instruction in connection with both of these departments. Nautical instruction is given to the majority of the boys, who show considerable intelligence in their work. All departments would gain by the adoption of detailed syllabuses of theoretical instruction. There is a very fair band.

Physical training, &c.—The whole ship's company take free exercises daily. Squads gave displays of drill with rifles, dumb-bells, and cutlasses, and a little applied work. When the ship is in dock in the winter football is played regularly. Otherwise, apart from their fortnight in camp, which this year is to be at Hornsea, the boys have no healthy recreation on shore.

Health.—A boy died in April from a form of cancer. Another who had suffered from tubercular peritonitis was discharged as unfit for training. There was an epidemic of influenza in February and many boys have been treated for adenoids. Of three boys in hospital at present one has ear disease and another pleurisy. There have been two cases of pneumonia, and many of skin affections—psoriasis, itch, scurvy, and ringworm. Provision for isolating cases seems to be limited. In addition to the doctor's visits the boys have the services of a dentist.

Conduct.—In a year broken by changes the list of misdemeanours, as might be expected, is a lengthy one. Four boys have absconded, but have since settled down. There have also been several cases of stealing and pilfering, but the principal trouble has been due to the persistent bad conduct of some three boys who appear to have improved recently. Smoking at one time frequent, has been reduced of late.—An extension of the mark system is worth consideration.

General remarks.—In spite of the obvious drawbacks the ship bids fair to go strongly ahead under its new captain-superintendent.

"Empress."

Visited.—22nd and 23rd April and 17th May, 1907.

Inmates.—Total number in school, 383; voluntary cases, 0; on licence, 13; absconders, 0.

Staff.—Captain-Superintendent, Commander G. S. Deverell, R.N. Mr. J. H. Cullen (t. & c.) was appointed head schoolmaster 1st March, 1906. Assistant teacher, Mr. W. Archibald (ex p.t.)

left 24th September, and was succeeded by Mr. R. Turner (ex p.t.) 17th September, 1906. Mr. Hall, engineer, died in October, 1906, and a successor has been appointed. There has been a change among seamen instructors.

Premises.—The ship is beautifully clean and sweet throughout. The sick bay has been floored with Veitchi flooring, and a new hatch has been fitted over the galley. Two new cutters have been purchased.

Standards with awards.—Starboard watch and VI and I of both watches. Standard VI, 17, good; Standard V, 29, good; Standard IV, 62, very fair; Standard III, 67, good; Standard II, 26, good; Standard I, 17, good. The general award is good. Work has improved vastly in neatness and accuracy.

Class subjects.—Singing as a recreation only. Composition, good. Mental arithmetic, good generally, particularly good in VI, very fair in IV. Geography, good. Recitation, good. History, good. Good object lessons have been given to the juniors. Intelligence is being developed on really good lines.

Industrial training.—The school must be warmly congratulated upon the general excellence of the drawing, particularly in the upper standards. Sixteen boys are engaged in the tailoring required for the outfitting of the boys. Eight boys assist the ship's carpenter in jobbing. Seamanship classes are well organised and the senior boys gain practical experience in the seagoing tender. Both the brass and reed band, and the pipe band keep up their high reputation. A large class showed up well in ambulance work. Boat pulling, as usual, is very good.

Physical training, &c.—A fine display of marching and physical drill with rifles was given by the whole of the boys. In addition squads are taken in gymnastic, marching and a little applied work. The net result on an average detention of three years, from 12½ to 15½, is a gain of eight inches in height, 7¼ inches in chest and 36 lbs. in weight. The play field is used for cricket and football as often as possible. Frequent entertainments are arranged, and there is a good library.

Health.—There have been three deaths, one from pneumonia in May, 1906, one from enteric last January, and one from peritonitis in March. A boy who developed consumptive tendencies was discharged as unfit for training. There appears to have been no other illness of a serious character, though a fair number of minor ailments and injuries are recorded. Chilblains are said to have been less prevalent than usual.

Conduct.—Offences during the year include breaking trust, overstaying leave, stealing small sums of money or stamps, tampering with parcels and letters, disobedience, and so forth. Bullying has had to be checked at times, and there are some persistent smokers. The conduct, as a whole, has been satisfactory, and an improved tone is specially noticeable in the schoolroom. An elaborate system of badges forms a great incentive to good work. Among 400 boys there must always be some whose future gives rise to anxiety. One of these, after expressing a desire to go to sea, deserted his ship at the first opportunity and has had to be recalled.

General remarks.—The outstanding feature of the year is the striking manner in which, by energy and application, the new headmaster has raised the level of the school work. This should be really first-rate next year.

"Mars."

Visited.—16th April and 22nd and 23rd March, 1907.

Inmates.—Total number in school, 400; voluntary cases, 0; on licence, 2; absconders, 1.*

Staff.—Captain-Superintendent, A. L. Scott, R.N. Mr. Burn was promoted to the post of chief officer on Mr. Spry's death, 1st November, 1906. Mr. Burn takes the manual instruction, and when ashore Mr. Dyke is the executive officer. Mrs. Sutherland, the nurse, died in April, 1906, and was succeeded by Miss Graham. Another nurse, Miss Martin, was added to the staff, September, 1906.

Premises.—The lighting of the ship has been improved by the addition of a second engine and dynamo.

Standards with awards.—Standard VI, 15, good; Standard V, 55, good; Standard IV, 62, good; Standard III, 99, good; Standard II, 103, good; Standard I, 50, good; Preparatory, 4, good. The general award is good. The teacher in Standard III has been ill and arithmetic had consequently suffered.

Class subjects.—Singing—sol-fa, good (above average). Mental arithmetic, good in II, IV and VI, very fair in I and V, fair only in III. Recitation, very fair in V and VI, good elsewhere. Composition, in V and VI, good. History, good right through. Geography, good. Useful "Nature Knowledge" lessons are given throughout. The development of intelligence is good.

Industrial training.—The drawing, both in the schoolroom and in connection with manual instruction, would gain by greater attention to finish. The school is to be warmly complimented on its fine suite of woodworking shops, which, both as to premises and work, are unsurpassed anywhere in Great Britain. The metal working shop is well under way. Some of the boys do very good work indeed; but the whole would gain by a little larger spirit of enterprise in the organization of the courses of work. An effort has been made to systematise the technical instruction in the tailoring shop. This may well be encouraged; and the same idea adopted in connection with the seamanship and shoe-repairing classes. Experience in practical seamanship is gained by the senior boys in a seagoing tender, which is kept in a good state of repair. There is a good band.

Physical training, &c.—This is well organized. The whole school take free Swedish gymnastics and also musical drill, and, in addition to this, all boys during their stay on the ship have a course of applied gymnastics. There is a fine swimming bath for use in summer. The boys are regularly landed for exercise ashore, in addition to the usual practice in rowing.

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* Mentioned in last year's report.

Health.—A boy was discharged shortly after admission suffering from epileptic fits. Two serious cases have made wonderful recoveries, one being that of a boy who suffered from blood poisoning, and whose life was for long despaired of. He was paralysed below the hips, but is now walking about and daily gaining strength. The other, a case of spotted fever, is now convalescent. Other cases, which have received attention, have been two of rheumatic fever, 10 of pneumonia, one case of chicken-pox and one of measles. All have made good recoveries. There have also been some abscesses and about a dozen cases of sore eyes. The last-named are now reduced to four.

Conduct—A new boy absconded, but was recovered shortly. Other delinquents have been punished for pilfering, chewing tobacco, impertinence and laziness; but the conduct altogether has given very little trouble.

General remarks.—This is a school which always inspires confidence. The health on board ship is always a matter of anxiety, but there is no doubt that the medical attention and the nursing are most careful and thorough. The "Mars" sets an excellent example to the rest of the training ships in providing an all-round training for its boys.

INDUSTRIAL SCHOOLS.—MIXED.

Newcastle.

Visited.—18th, 8th and 9th March, 17th May, and 1st October, 1907.

Inmates.—*Boys*—Total number in school, 113; voluntary cases, 0; on licence, 7; absconders, 0.

Girls.—Total number in school, 21; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—*Boys*—Superintendent, Mr. R. Willoughby. There have been changes in the posts of cook, tailor, joiner and manual instructor.

Girls.—Matron, Miss E. Gledstone. Miss Rosa Reid was appointed assistant matron 4th June, 1906, in place of Miss Maxwell, who died 21st May, 1906. Mrs. Jean Campbell Wood was appointed schoolmistress 22nd March, 1906, in place of Miss K. Scott, who left 16th March, 1906.

Premises.—The drainage on the girl's side has been thoroughly overhauled, the lavatory and scullery have been altered and improved at considerable cost. The new breeches for the boys are a great improvement, and with their boots properly cleaned have smartened their general appearance. The bedding on the boys' side need attention.

Standards with awards.—*Boys*—Standard VI, 20, good; Standard V, 19, good; Standard IV, 27, good; Standard III, 22, very fair; Standard II, 15, very fair; Standard I, 10, very fair. The general award is good.

Girls.—Standard V, 7, good; Standard IV, 3, good; Standard III, 0; Standard II, 6, very fair; Standard I, 4, very fair; Standard 0, 1, very fair. The general award is good.

Class subjects.—*Boys*—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, very fair in III and IV, good in other standards. Mental arithmetic, good. Geography, good. Object lessons, good. The general development of intelligence is good.

Girls.—Singing—sol-fa, good. Mental arithmetic, good in IV and V; very fair in other standards. Geography, good. Composition, good. Recitation, good. Object lessons, good. The development of intelligence is fairly good.

Industrial training.—*Boys*—Drawing shows steady attention; a little better finish would improve it. Manual instruction is very fair, and promises well. Technical Instruction in the tailoring, shoemaking, and printing shops should be arranged on a definite scheme of lessons. The machine construction lessons given to the senior boys are a notable feature of the school.

Girls.—Elementary needlework is taught in the schoolroom, but very little training in needlework is done in the house; the repairs are of a very rough character. The girls assist, as far as time will allow, in making their outfit. Cookery lessons have been regularly given through the winter by a visiting diplomatised teacher; the practical work done was good and the answers on prices and quantities of foods required were intelligently given. A great amount of hard, practical work is done in the laundry, but the methods adopted for washing are not good, and the clothes, in consequence, are a bad colour. Three of the older girls can iron nicely.

Physical training, &c.—A very fine display of free gymnastics and exercises over the horse and on the horizontal bar was given. Two-thirds of the total number competed. The school was in fact second for Mrs. Legge's cup. Football is played, and the boys are a well-grown, active looking set. It was unfortunately impossible for the drill instructress to be present to take the girls.

Health.—Miss Maxwell died in May of consumption following typhoid fever. One boy was discharged suffering from tubercular disease of the bowels supervening on influenza. There were several cases of influenza in the early part of 1907. Other cases which received attention were cases of swollen glands, synovitis, abscess. The girls and boys attend the dental hospital in rotation. The doctor gives a course of 12 or 14 ambulance lectures during winter, and also gives prizes to the boys at the end of the session. The fortnight's holiday at Whitby is invaluable to the school.

Conduct.—The misconduct has not been serious. Boys have been punished for fighting and disobedience. And some girls have needed correction for lying, inattention, &c. There is a mark system on both sides. The boys treasure their weekly leave to their homes.

General remarks.—The children here are always well-behaved and a pleasure to meet. The difficulties of managing the mixed school become apparent as the numbers of the girls decrease.

Kilmarnock.

Visited.—4th March, 21st February, 27th March and 16th December, 1907.

Inmates.—*Boys*—Total number in school, 80; voluntary cases, 0; on licence, 7; absconders, 0.

Girls.—Total number in school, 24; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. McMenan. There has been a change of tailor.

Premises.—There has been no alteration in the premises.

Standards with awards.—*Boys* and *Girls.*—Standard VI, 10 and 1, good; Standard V, 10 and 3, good; Standard IV, 22 and 6, good; Standard III, 20 and 4, very fair; Standard II, 8 and 3, good; Standard I, 5 and 1, very fair; Preparatory, 4 and 5, backward. The general award is good, but the lower classes would benefit by extra attention.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Mental arithmetic, good generally, fair in III. Geography, good. Recitation, good. Object lessons have been given to all, with machinery lessons to the seniors. Intelligence is well developed.

Industrial training.—Drawing requires extra attention as regards both neatness and finish. Manual instruction is again good, but the instructor must endeavour to maintain the former fine standard of finish. Technical instruction in the tailors' shop is likely to receive good attention under the new instructor. A selection of machine parts are used for giving lessons in the schoolroom to the seniors. The boys appreciate these lessons and display a keen interest in them. Needlework on the whole is very fair except for the repairing of garments; this requires close attention. A good attempt has been made at cutting-out. Several girls can work the sewing machine and are assisting with dressmaking. Cookery lessons are given by a visiting diplomatised teacher. The answers on the day of visit were very fair on the whole. Notebooks should be marked. The girls assist with the washing, but there is not much done in actual training in laundry work. Good places are found for both boys and girls.

Physical training, &c.—Creditable displays of free gymnastics were given by both boys and girls. A little work on the parallel bars was done by the boys. Care should be taken to ensure correct position, and that boys are physically fit for the work they undertake. The best introduction to applied gymnastics is the vaulting horse. The girls go for walks regularly, and they and the boys have various outings. Swimming is practised in baths near by, and football is played in a public park.

Health.—The health has been excellent. The only serious case was one of acute pneumonia, which made a good recovery. A girl is now undergoing treatment in the infirmary for tubercular disease of the foot.

Conduct.—There have been three cases of absconding, one of these at least being due to conspiracy on the part of the parents. Apart from this there appears to have been little trouble.

General remarks.—Good work has been done in the schoolroom and elsewhere. During the year the superintendent and matron completed 25 years' service, when the numerous friends of the school celebrated the occasion by a handsome presentation and hearty congratulations.

INDUSTRIAL SCHOOLS—Girls.

Cold Ash.

Visited.—25th June and 10th July, 1907.

Inmates.—Total number in school, 31; voluntary cases, 15; on licence, 1*; absconders, 0.

Staff.—Matron, Miss I. L. Walters. The assistant-matron, Miss McRae, left 6th February, 1907, and Miss Rose Deane succeeded her.

Premises.—Additions to the school were completed at the end of October, and comprised a playroom, chapel, isolation rooms, baths, lavatories, and fire-escape. The cloak-room was thrown into the schoolroom as a class-room. The premises have been much improved by the alterations.

Standards with awards.—Standard VI, 2, good; Standard V, 9, good; Standard IV, 2, very fair; Standard III, 5, very fair; Standard II, 9, good; Standard I, 3, very fair; Preparatory, 1, infant. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI, good. Recitation, good. Mental arithmetic, poo in III, very fair in II and IV, good in upper standards. Geo graphy, good. Useful lessons on domestic economy have been given. The development of intelligence is good.

Industrial training.—Excellent needlework is done here. Repairs are good, darning being above the average, and some of the girls learn to use the sewing machine. As much practice as possible in cutting-out should be given. Laundry work is very fair on the whole, but improvement in some of the washing is desirable. All the older girls in their turn do the cooking for the staff, but no special lessons are being given at present. The lessons were resumed before the end of the year.

Physical training, &c.—The exercises with dumb-bells were nicely performed. Gymnastic marching would be good for the girls and would be assisted by their wearing tennis shoes. There are plenty of opportunities for walks in the country, and the most is made of them.

* At the Mount Vernon Hospital, Northwood.

Health.—A case of phthisis has been sent for treatment to Mount Vernon Hospital, Northwood. Two cases of tonsilitis occurred in April, and one of them suffered from debility afterwards. Besides these a case of chicken-pox and one of corneal ulcer have been treated. One of the staff had pneumonia in November, and a second attack in April.

Conduct.—A few girls have had to be corrected for disobedience, stealing and bad language. In many respects the school must be a difficult one to manage, receiving as it does girls of more advanced age than many industrial schools, and a large proportion who are mentally defective.

General remarks.—The school was removed in two separate batches to Homes of the Society in Birmingham and Kettering while alterations were in progress. Now that the school is again settled, steady progress in all departments may be looked for.

Stockport.

Visited.—18th February, 1st March, and 6th September, 1907.

Inmates.—Total number in school, 68; voluntary cases, 2; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss J. Wotherspoon. Miss Lewis left 10th September, 1906, and was succeeded, 1st November, by Miss L. E. Lowe (t. & c.). There have been changes in the posts of sewing mistress and laundry matron.

Premises.—There have been no changes in the premises. The rain-water tank in the yard has been filled up. The want of outside fire-escapes is again brought to the notice of the committee. An early opportunity should be taken of improving the laundry and substituting enamel tubs for the present wooden ones.

Standards with awards.—Standard VI, 8, good; Standard V, 8, good; Standard IV, 12, good; Standard III, 13, good; Standard II, 14, good; Standard I, 6, good; Preparatory, 5, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good. Geography, good. Recitation, good. Composition, good. Domestic economy had been taken by the upper, and object lessons by the lower standards. The development of intelligence is good.

Industrial training.—Needlework is quite above the average; the fine work done by all the older girls deserves praise. A number of girls can cut out, fit and machine dresses. The quiet, steady way in which these girls tackle each branch of their needlework is highly commendable. Laundry work is scarcely as good as formerly; the clothes are beautifully ironed, but might be improved in colour, and the useful notebooks which used to be kept are no longer in use. Cookery lessons have been given, a number of useful dishes have been taught, and good notebooks kept. The work done on the day of the visit was very creditable. Domestic economy lessons have been given, and in future notebooks will be kept.

Physical training, &c.—The marching and free gymnastics are performed with great vigour and precision. Several concerts have been held at the school, and by the kindness of friends a good many pleasant days have been spent at various country houses. Entertainments, the annual dinner given by the Mayor and Mayoress, and a Christmass tree, all show that the life of the girls is not a monotonous one. There was a successful re-union of old scholars in April.

Health.—The health has been satisfactory all through the year. Two cases of chicken-pox were nursed in the school in July and August, but it did not spread. Two girls have been receiving attention, the one suffering from ozena the other from otitis. There are only a few other trivial ailments on record.

Conduct.—Only one girl seems to have given anything like serious trouble, and that by rudeness. The mark system seems to work well, and to maintain good discipline in the school.

General remarks.—The school keeps well in the front rank of girls' industrial schools.

Plymouth.

Visited.—30th July and 16th January, 1907.

Inmates.—Total number in school, 54; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss S. A. A. Hathaway. There have been changes in the posts of kitchen matron and laundress.

Premises.—There has been no alteration in the premises, which were beautifully clean.

Standards with awards.—Standard V, 13, good; Standard IV, 10, good; Standard III, 10, good; Standard II, 9, good; Standard I, 7, good; Preparatory, 4, beginners. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition in V, good. Recitation, very fair in upper, good in lower standards. Mental arithmetic, fair in III, very fair in IV, good elsewhere. Geography, good. Good object lessons are given to the lower standards. Intelligence is well developed.

Industrial training.—Needlework is fairly well done. The fine sewing is good, but more care should be given to cutting out, and an effort should be made to teach the sewing machine to the older girls. Some dressmaking has been done, but this requires developing. Cookery lessons are given at the Cookery Centre by a diplomatised teacher. The answers on theory were somewhat vague, and a better knowledge of prices of food should be obtained. Laundry work is satisfactory. A little washing is received from the public, the clothes are a good colour and nicely finished.

Physical training, &c.—Drill on Swedish lines is taken once a week by the visiting instructor, in addition to practice twice a week under the schoolmistress. Walks are taken every

day when weather permits, and the whole school went for a holiday on Dartmoor last autumn. Fire drill has been instituted.

Health.—This has improved. The most serious case was one of double pneumonia, which made a good recovery after careful nursing in the school. Another girl, suffering from tubercular glands, was discharged, and is now in a convalescent home. The cases noted include a few of skin affections and other minor ailments, one of erysipelas, and a few of influenza. A girl, suffering from phthisis, mentioned in last report, and now on licence, has improved considerably during her stay at Dartmoor. The doctor visits two or three times a week, and a dentist attends to the teeth. Tooth brushes are in use.

Conduct.—There is nothing to record here except one case of disobedience. There is a mark system in force, which appears to work well.

General remarks.—The improvement in the health is satisfactory, but it is to be hoped that the idea of moving out of the town to more roomy quarters has not been given up. The girls have done well in the schoolroom, and much appears to be done to keep in touch with them after leaving.

Dorset.

Visited.—9th and 30th May, 1907.

Inmates.—Total number in school, 85 ; voluntary cases, 5 ; on licence, 2 ; absconders, 0.

Staff.—Superintendent, Miss Gabbett ; matron, Miss Hammond. Miss Boardman, assistant matron, has been placed in charge of the nursery home. Miss Read (Art. 68) was appointed kindergarten teacher 28th August, 1906. Miss Meredith has been appointed assistant matron.

Premises.—An adjoining house has been taken, and is utilized as a nursing home. The premises have been painted and coloured, and are beautifully clean throughout. Various improvements have been made, including the provision of some new desks for the schoolroom.

Standards with awards.—Standard VI, 10, good ; Standard V, 3, good ; Standard IV, 13, good ; Standard III, 16, good ; Standard II, 10, good ; Standard I, 8, good ; Preparatory, 22, infants. The general award is good. In view of the fact that the school was examined some weeks earlier than usual, the work was specially creditable.

Class subjects.—Singing—sol-fa, good. Composition, very fair. Recitation, good, Mental arithmetic, good. Geography, good. History readers have been intelligently used. Intelligence is well developed.

Industrial training.—Needlework in the schoolroom has been most industriously carried on ; the work is of the finest quality—quite above the average. The outfit work and general repairs are also very satisfactory. In cutting-out much more has

been attempted this year than formerly. Laundry work is quite satisfactory. Each girl is receiving a good all-round training in washing and ironing. The clothes are a beautiful colour. A course of cookery lessons, under a diplomatised teacher, has been taken by 18 of the senior girls. The dishes are well chosen. Special praise is due to the efforts made to win the confidence of the children's parents. To this the success attending disposal is largely due.

Physical training, &c.—Physical drill on good lines is taken twice weekly by a visiting sergeant. This might easily be further developed, and the advantages of the Swedish system should not be lost sight of. Walks are taken frequently, and the garden provides every opportunity for healthy outdoor exercise. The school is well off for friends and there are numerous treats in the summer.

Health.—Ringworm, which was a trouble last year, has been reintroduced by a new-comer, and there are four cases at present. Two children have shown tuberculous tendencies, and one has heart disease. There have been several cases of influenza, one or two of tonsilitis and two of bronchitis, but the general health has been very good.

Conduct.—The only girl who gave any real trouble was transferred to another school. Otherwise the faults appear to have been of a minor character, and to have been dealt with easily under the excellent mark system.

General remarks.—The school has made rapid progress during the last year or two, and in several points, among them the provision made for very young children, is specially good.

Sunderland.

Visited.—9th, 10th and 11th May, and 2nd October, 1907.

Inmates.—Total number in school, 60; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss A. M. King. There has been no change in the staff.

Premises.—No structural alterations have been made, but the old staircase leading from the schoolroom landing to the dining-room has been replaced by a new one. A system of electric fire alarm bells has been installed.

Standards with awards.—Standard VI, 3, good; Standard V, 4, good; Standard IV, 10, good; Standard III, 12, good; Standard II, 14, good; Standard I, 10, very fair; Preparatory, 7, can read and write and work small addition sums. The general award in Standard II and upwards is good.

Class subjects.—Singing—sol-fa, good. Recitation, good in all classes. Composition, in Standards V and VI, good. Mental arithmetic, fair in Standards V and III, very fair in Standard I,

and good in Standards II, IV and VI. Geography is very fair in Standard I, good in II and III, and good (above the average) in Standards IV, V and VI. Intelligence is much improved.

Industrial training.—Needlework is good on the whole; cutting-out has been successfully taught in the schoolroom. Eight of the senior girls have received lessons in scientific dressmaking from a diplomatised teacher—this has been a great success. It will be well to see that all the older girls have a chance of learning the sewing machine. Cookery lessons have been given by a diplomatised teacher at an outside centre. Answers were intelligently given. Good notebooks are kept. Laundry work receives attention. All the older girls can wash, and a few can iron well.

Physical training, &c.—Club and free exercises were splendidly performed under direction of the new drill instructor; there is a decided improvement here—accuracy and alertness being well observed. Fire drill was performed in one-and-a-half minutes. The girls had an extra week in the holiday home last summer as repairs were being made to the staircase. The usual lectures, entertainments and concerts during the winter months were enjoyed.

Health.—One girl with defective sight has been supplied with glasses, but there has been no sickness, and to-day the girls are pictures of health.

Conduct.—A few cases of rudeness, pilfering and quarrelling are recorded. One transfer girl was very troublesome at the beginning of the year and was eventually transferred to another school, but the year, on the whole, has been a peaceful one.

General remarks.—This institution, now that it has its full complement of scholars, is making excellent headway. The upper girls are keenly interested and do their work well, but the dull ones must be carefully watched so that they are not left behind. Needlework might be better organized. The managers are to be congratulated upon the success of the special classes in cookery and scientific dressmaking.

St. Joseph's (Darlington).

Visited.—5th and 6th June and 17th December, 1907.

Inmates.—Total number in school, 118*; voluntary cases, 71*; on licence, 2; absconders, 0.

Staff.—The school is in charge of Sister Josephine Cullen and four sisters of the Order of St. Vincent de Paul, together with nine lay assistants, one of whom assists in the schoolroom with the elder girls. An assistant in the clothes room has left otherwise the staff is the same as last year.

Premises.—The premises were clean and in order throughout. It is under consideration to improve the sick room accommodation. A system of fire-drill has been introduced.

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* 22 of these are over 16 years of age.

Standards with awards.—At Elementary School Standard VI, 5, good; Standard V, 6, very fair; Standard IV, 11, good; Standard III, 11, good; Standard II, 15, very fair; Standard I, 17, good; Preparatory, 5, infants. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Mental arithmetic, very fair generally, good in III. Geography, good on the whole, very fair in IV. History and grammar have been taught, and good object lessons have been given. The seniors have had domestic economy, and drawing is taught to all. Intelligence is developed on good lines.

Industrial training.—The needlework taught in the schoolroom is good; the cutting-out and other tests were well done. The fine needlework done in the home is above the average, but the general repairs are only very fair. A large quantity of laundry work is executed weekly. A number of the senior girls can iron well, but the colour of the home clothes requires improving. Cookery lessons are given by a diplomatised teacher at the town's centre. Some intelligent answers were given by girls who had been through the course. The benefit of these lessons would be more permanent if more opportunity for practice could be afforded in the home.

Physical training, &c.—This remains on the same lines as before. The marching drill and free exercises are taken twice weekly, and as far as they go are well performed. Suitable provision appears to be made for recreation.

Health.—The majority of the girls have enjoyed good health during the year. There have been two cases of scarlet fever, two of pleurisy, four of measles, and one each of pneumonia, appendicitis, tonsilits, and inflammation of the lungs. There were four girls in the sick-room on the day of inspection.

Conduct.—Disobedience and laziness are practically the only faults recorded during the year.

General remarks.—There is nothing to add to the previous paragraphs, beyond stating that of the 17 girls who do not attend the day school, nine are in V (good); six in IV (good); and two backward girls in III. The year has been uneventful.

Halstead.

Visited.—1st June and 11th January, 1907.

Inmates.—Total number in school, 62*; voluntary cases, 1; on licence, 2; absconders, 0.

Staff.—Superintendent. Miss H. M. Newman. The staff remains the same.

Premises.—There have not been any structural alterations. All parts of the house are in good order.

Standards with awards.—Standard V, 16, good; Standard IV, 15, good; Standard III, 8, good; Standard II, 7, very

* Including one girl who is waiting for a situation.

fair; Standard I, 5, good; Preparatory, 10, three are infants, the remainder are able to read, write, and count. The general award is good, though there is a general weakness in arithmetic.

Class subjects.—Singing—sol-fa, good. Composition, in Standard V, good. Recitation, good in all classes. Mental arithmetic, fair in Standards I, III, and V, very fair in II, and good in IV. Geography, good. History readers are intelligently read. Kindergarten work and brush work have been well done in the lower standards, and nature study lessons have been given to the upper standards.

Industrial training.—Plain needlework, knitting and repairing generally are good. All the older girls should be encouraged to learn the sewing machine, and more practice in cutting out is required. The washing of the school clothing is done by the bigger girls, but no outside work is attempted. The clothes are a good colour. The usual course of cookery lessons was not taken last autumn, but it is hoped that a course will be followed again next session.

Physical training, &c.—Swedish exercises were well performed, though some of the positions were not quite correct. Exercises for the lower limbs have been introduced and were well performed. 35 girls were present at the annual re-union. Walks are taken regularly. The summer holiday, in relays, to Walton-on-the-Naze, is enjoyed and proves most beneficial to the general health.

Health.—There have been seven cases of ringworm, one of eczema, and one of enlarged glands. The cases of ringworm have been stubborn, but are now being got under. Health on the whole has been very good.

Conduct.—Very little trouble has been experienced with the discipline. The mark system is found to work well.

General remarks.—There is an improvement in the schoolroom work generally, and, with perseverance, there is no reason why this department should not in another year's time take high rank. The girls should be encouraged to be as natural as possible; they are at present too reticent to do themselves or their teachers justice.

Stanhope House, Bristol.

Visited.—10th May, 15th January, 26th March and 10th December, 1907.

Inmates.—Total number in school, 60; voluntary cases, 0; on licence, 4; absconders, 0.

Staff.—Superintendent, Miss F. Chandler. There has been a change of laundress.

Premises.—Six new washing basins have been fixed in the play-shed. A dinner lift is being placed from the kitchen to the dining-room.

Standards with awards.—Standard VI, 6, good; Standard V, 8, good; Standard IV, 13, good; Standard III, 14, good;

Standard II, 10, good; Standard I, 6, good; Preparatory, 3, beginners. The general award is good. Arithmetic in V is below this level.

Class subjects.—Singing—Sol-fa, very fair. Composition, in V and VI, good. Recitation, very fair. Mental arithmetic, fair only in III, good elsewhere. Geography, very fair in IV, V, and VI, good in other standards. Object lessons are taken throughout. The general intelligence is good.

Industrial training.—Needlework is fairly well done. Cutting-out requires attention. A little dressmaking by the girls has been attempted, but this is not very satisfactory. Repairs require more care. Cookery is taught by the assistant matron and kitchen assistant—theory requires more care. Laundry work is very disappointing, The clothes are a bad colour; no stiff linen is attempted, and only two girls are able to iron anything but the plainest of clothes.

Physical training, &c.—A good display of physical exercise on Swedish lines was given. Walks are taken twice a week when weather permits, and the annual fortnight's holiday at New Passage is looked forward to by all.

Health.—One girl was discharged on account of tubercular glands, and was sent to the Metropolitan Asylums Board Home at Margate. There was a case of enlarged glands and one of ulcer on tongue. A few girls suffered from influenza in January. The health during the year has been extremely good, and the girls looked bright and well. A dentist looks after the girl's teeth.

Conduct.—The girls appear to give very little trouble. The only serious offence recorded was one of stealing from other girls.

General remarks.—The girls are well cared for and appear bright and happy. A word of praise is due for the neatness of the work in the schoolroom. It is essential that a better record should be kept of the girls who have left.

Carlton House, Bristol.

Visited.—16th and 28th May, 1907.

Inmates.—Total number in school, 54; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss K. Macfarlane. There have been changes in the posts of house matron and laundress.

Premises.—There has been no change in the premises.

Standards with awards.—Standard V, 7, good; Standard IV, 13, good; Standard III, 14, good; Standard II, 9, good; Standard I, 6, good; Preparatory, 5, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in IV and V, good. Recitation, good. Mental arithmetic, good. Geography, good. Good object lessons had been given throughout. The development of intelligence is good.

Industrial training.—Plain needlework and repairs are satisfactory, and a good attempt at fancy work has been made. The senior girls assist with dressmaking. Cutting-out will require care and the older girls should be encouraged to work the sewing machine. Cookery lessons have been given by a diplomatised teacher, but the girls do not appear to have sufficient practical work. Quantities of ingredients and prices of foods require studying. Laundry work is greatly improved; the work done, both washing and ironing, being very good. Useful lessons in housewifery have been given by a diplomatised teacher.

Physical training, &c.—The Swedish drill is exceptionally good. The instructor seems thoroughly to have won the good will of the girls. In the summer months the drill is suspended and the girls go instead to swimming baths; nine obtained certificates in 1906. There is a regular walk once a week.

Health.—A little child, who for long had suffered from heart disease, died in April. There has been no other serious illness, but children have been treated for the following ailments:—boils, cough, eczema, shingles and sore throat. A girl with curvature of the spine has greatly improved. She is to have extra holidays in the country. All the school goes to Cheddar Valley for three weeks in summer.

Conduct.—The general conduct has been good. A few girls have had to be corrected for impudence, deceit and dishonesty. Three girls admitted at a late age were troublesome, but have improved. There is a good mark system with money rewards.

General remarks.—This school inspires confidence. The work in the schoolroom was neat and accurate and the intelligence well brought out, but the finest feature is the relationship kept up between the girls and the superintendent for long after they have left.

Portsmouth and South Hants.

Visited.—28th and 31st May and 11th December, 1907.

Inmates.—Total number in school, 36; voluntary cases, 0; on licence, 3; absconders, 0.

Staff.—Superintendent, Miss H. L. Hanmer. There have been changes of sewing-matron and laundry-maid.

Premises.—The premises need doing up here and there, but are clean throughout. A simple fire-drill should be practised occasionally, and in this connection it might be well to fence the inside of the outside iron staircase with wire netting, so as to minimise the risk of injury.

Standards with awards.—Standard VI, 6, good; Standard V, 7, good; Standard IV, 5, good; Standard III, 2, good; Standard II, 7, good; Standard I, 1, good; Preparatory, 4, making good progress. The general award is good. Progress is very creditable.

Class subjects.—Singing—good, with some instruction in sol-fa. Composition, good. Recitation good. Mental arithmetic,

good generally, not so good in III. Geography, good. History and geography readers are in use. Good object lessons have been given. The girls are bright and intelligent.

Industrial training.—An amount of good needlework has been done in the schoolroom during the year. The new work and repairs done on the day of the visit were highly satisfactory. Cutting-out by scale is a new feature in the schoolroom this year; the diagram notebooks are carefully kept. The senior girls have commenced to attend a cookery class at the village centre. At present the cooking is not conducted in a sufficiently intelligent manner. Laundry work receives attention; all the elder girls are able to wash and iron. Great pains are taken in placing the girls in suitable situations, and a good outfit is provided.

Physical training, &c.—Under the direction of the schoolmistress a good display of free exercises on Swedish lines was given. The marching in particular was admirable. It was a pleasant surprise to see every girl step off smartly with the left foot. Through the kindness of friends the girls are well off for treats and outings, while indoor recreation is provided for by a library and various games.

Health.—The school has always been noted for its excellent health. During the last twenty years there has been no death among the girls in the school, and only two it is believed among girls who have left. Infectious illness has been of rare occurrence, but just now with measles prevalent in the district there are two slight cases in the school. Otherwise there has been nothing to call for remark. The teeth are carefully looked after.

Conduct.—Conduct is regulated mainly by means of the mark system, which continues to work satisfactorily. Offences have been few. A girl who was at one time addicted to pilfering and deceit has improved of late, and another has given some trouble by neglect of duty and indifference. But the general tone is good and the girls' manners are delightfully natural.

General remarks.—Nearly all the girls here are from London, and they certainly appear to thrive remarkably well in every way in their attractive surroundings.

Sale.

Visited.—20th and 27th February, 1907.

Inmates.—Total number in school, 102; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss Hopton. Miss Worthington left 30th October, 1906, and has been succeeded temporarily by Miss E. Walton (t. and c.). Miss A. Jameson (t. and c.) has been appointed as from 1st March, 1907. Miss Barnes, house matron, left 6th October, 1906, and was succeeded by Miss Dunk. There have been two changes in the posts of sewing-mistress and general assistant, and the head laundress and her assistant are both new.

Premises.—There have been no changes in buildings. As opportunity offers, the kitchen walls, a wall in a dormitory, the

staircase and landing should be plastered. The floor of the lavatory needs renewing. All parts of the house were in beautiful order.

Standards with awards.—Standard VI, 7, good; Standard V, 11, good; Standard IV, 15, good; Standard III, 28, good; Standard II, 13, good; Standard I, 14, good; Preparatory, 12, good. The general award is good.

Class subjects.—Singing—sol-fa and staff notation, good. Mental arithmetic, very fair in II and III, good in other standards. History, good. Object lessons, good. Geography, good. Recitation, good. Composition in V and VI, good. The development of intelligence is good.

Industrial training.—Needlework is well done, buttonholing and gathering being especially good. Cutting-out tests were well done. Most of the elder girls can machine, and have done some good dressmaking. Laundry work is above the average, the clothes are beautifully washed and ironed. Cookery lessons are given weekly by the kitchen matron; these are on good lines; prices and quantities of foods are well known, and useful notebooks are kept. Good work generally is being done in the industrial department, but an effort should be made to give the girls who are soon to leave the school every opportunity of becoming proficient in each branch of work. It should be noted that seven prizes were won for needlework at the Liverpool exhibition.

Physical training, &c.—The physical drill, which is on the model course issued by the Education Department, was vigorous and accurate. Well-organised games had been taught supplementary to the drill. The girls also play hockey. A visit to New Brighton, concerts, and parties have added brightness to the year. At the Morcambe Festival, and again at the Church of England Temperance Society Festival, Manchester, the choir carried off prizes.

Health.—There was a death from anæmia and many complications in August. Other cases which have been treated have been one of rheumatism, one of abscess, one of synovitis, two skin affections, and a sprained wrist.

Conduct.—The general conduct has been good. There have been some faults which have needed correction, but nothing very serious. The mark system is well worked.

General remarks.—The girls looked bright and happy, and the tone appeared to be thoroughly good. It seems necessary to remind the managers that the limit (100) is an outside one for a girls' school and should not be exceeded even for a day.

St. Joseph's (Manchester).

Visited.—19th and 4th February and 24th September, 1907.

Inmates.—Total number in school, 157; voluntary cases, 5; on licence, 7; absconders, 0.

Staff.—The school continues under the management of Sister Gunning and ten sisters of the Order of St. Vincent de Paul.

Premises.—There is no change to record in the premises The fire-escape has been completed; the machinery in the laundry guarded; new cases have been fixed in the lobby for hats, toys, &c.

Standards with awards.—Standard VI, 8, good; Standard V, 22, good; Standard IV, 29, good; Standard III, 22, good; Standard II, 28, good; Standard I, 24, good; Preparatory, 11, good. The general award is good.

Class subjects.—Singing—the children sing nicely by ear only. Mental arithmetic, good. Geography, good. Recitation, good. Composition, in V and VI, good. Object lessons, in the lower standards, good. The development of intelligence is good.

Industrial training.—Fine needlework is, as usual, excellent, but too much time is given to working specimens; the gusset requires attention. A good attempt has been made at cutting-out and machining. Some of the more advanced girls are exceedingly clever at fancy work. Cookery lessons are well conducted by Sister Philomene. Each girl can work independently; all tests were well done; prices and quantities of foods required are studied. A great amount of beautiful work, in which most of the strong girls assist, is done in the laundry. It is satisfactory to know that many of these girls make use of this training in after-life.

Physical training, &c.—This is on good lines, and the free gymnastics and marching really did credit to the girls and their instructor. One would like to see a little more vigour in some of the arm movements. A new departure here, which might well be followed by all schools, is a good walk daily. There seems to be no lack of treats and entertainments.

Health.—There was a death in January from heart failure following on acute rheumatism. A girl, who suffered from pulmonary tuberculosis, has made a wonderful recovery. Other sickness includes cases of pleurisy, weak heart, and feverish colds. The school takes its full share of delicate girls. There are several who are very deaf—adding considerably to the difficulty of their training.

Conduct.—The conduct has given but little trouble. After the Christmas festivities a few girls seem to have been obstinate and lazy. There is a system of marks which works well.

General remarks.—The school is always a pleasant one to visit because of the frank natural manner of the girls. No efforts are spared to fit them for the battle of life.

Liverpool.

Visited.—11th February, 24th January and 26th September, 1907.

Inmates.—Total number in school, 101; voluntary cases, 1; on licence, 27; absconders, 0.

Staff.—Superintendent, Miss F. Calver. Mrs. M. D. Carter (t. and c.) was appointed head mistress 21st March, 1906. The post had been vacant for five months. There has been a change of assistant matron.

Premises.—There is no change in the premises, which showed a creditable degree of cleanliness throughout.

Standards with awards.—Standard VI, 3, very fair; Standard V, 11, very fair; Standard IV, 10, good; Standard III, 18, fair; Standard II, 21, good; Standard I, 29, good; Preparatory, 9, making progress. The general award is very fair. The proportion in upper standards is small, but the style of work shows much improvement and promise for the future.

Class subjects.—Singing—sol-fa, good (above the average). Composition, in VI, good, in V., very fair. Mental arithmetic, good in lower group, very fair in VI, V and IV, poor in III. Geography, good. Recitation, good. Some useful object lessons have been given. Intelligence is being well developed.

Industrial training.—Needlework is much improved. The cutting-out of under garments and morning dresses by the girls was good, but care must be taken that all the girls whose time is nearly finished get the advantage of this training. All the needlework is well done, and particularly clean. Cookery is good on the whole, though the girls require to be better acquainted with the prices of goods and quantities for small numbers. Care should also be taken that suitable utensils are used in the preparation of food. Laundry work is well done on the whole, but a greater number of older girls should be more advanced in the work. Nearly all the girls go to domestic service, for which they seem to be in great request. Personal visits are paid by the superintendent.

Physical training, &c.—A good display was given under expert direction of free and applied gymnastics and gymnastic marching. The excellent course now includes Swedish drill. The girls have had various treats, and the three weeks in camp at Heswall proved highly beneficial. Indoor recreation is well arranged for.

Health.—A girl was sent to hospital in May suffering from tubercular peritonitis, but has since recovered. In December there was an outbreak of measles, extending to nine cases. A girl is now in hospital with heart disease, and there are two in the school who are subject to fainting fits. Recently there have been some cases of ringworm and a good many colds, and some of the girls are still looking pale. The doctor holds a quarterly examination.

Conduct.—The general conduct appears to have been satisfactory. The faults recorded are of a minor character—neglect of work, damaging property, and similar offences. A mark system is in operation.

General remarks.—Much conscientious work has been done during the year, especially in the schoolroom. But while the school may be on an upward trend, it is hardly likely to reach the very front rank in its present surroundings.

Nile Street, Liverpool.

Visited.—15th and 8th February, 1907.

Inmates.—Total number in school, 80; voluntary cases, 0; on licence, 11; absconders, 0.

Staff.—Superintendent, Miss J. F. Young. There has been a change of kitchen matron.

Premises.—All parts of the premises are clean and in order. There have been no structural alterations, but various improvements have been made, especially in the laundry and the kitchen.

Standards with awards.—Standard VI, 9, good; Standard V, 13, good; Standard IV, 16, good; Standard III, 11, good; Standard II, 21, good; Preparatory, 9, making good progress. The general award is good. There are some backward girls in III.

Class subjects.—Singing—sol-fa, particularly good. Some well-chosen part songs were admirably rendered. Composition, good. Mental arithmetic, good generally, hardly so good in IV. and III. Geography, good. Recitations, specially good throughout. Capital series of general knowledge, and object lessons have been given. The children answer brightly, and their intelligence is well developed.

Industrial training.—Needlework is beautifully neat and clean. All girls can sew, knit and mend; seaming, buttonholing and fancy stitching deserve special praise. Most of the older girls can cut-out, and have also been taught some dressmaking; it is hoped the girls will next learn to fit. Several can work the sewing machine. Cookery is good. The girls work quite independently, being able to manage the oven as well as prepare their dishes satisfactorily. The dishes taken in hand on day of visit were nicely prepared, cooked and served. Laundry work is greatly improved; useful notebooks are kept. It is well to occasionally remind the girls of the difference between appliances to be found in the institution compared with those they may expect to find in the ordinary private house.

Physical training, &c.—The physical training is on quite ideal lines for a school of this kind. Swedish exercises are taken by a lady expert, and military drill by a member of the Committee. Spirited displays of both were given. A successful month was spent in camp at Hightown, and numerous treats and entertainments have been given by the many kind friends of the school.

Health.—A girl has been sent to a convalescent home recently, as she is suffering from phthisis. The general health has been uniformily good, only a few slight ailments being recorded.

Conduct.—This has been satisfactory. Deceit and pilfering appear to be the most common faults, but nothing of a serious nature has occurred. The mark system continues to work well.

General remarks.—Since the advent of the present superintendent the school has shown steady improvement, and now it earns a thoroughly good report in all departments. To this result the active interest and ready sympathy of the Committee have largely contributed.

St. Anne's, Freshfield.

Visited.—12th March, 14th February, 25th September, and 4th November, 1907.

Inmates.—Total number in school, 155*; voluntary cases, 6*; on licence, 0; absconders, 2.

Staff.—The school is in charge of the Sister Superior and nine other sisters of the Order of St. Vincent de Paul. There are two changes among the laundry assistants.

Premises.—A fine iron staircase for escape in case of fire has been built. The premises are clean and in order throughout.

Standards with awards.—Standard VI, 7, good; Standard V, 18, good; Standard IV, 17, good; Standard III, 29, very fair; Standard II, 26, good; Standard I, 22, good; Preparatory, 13, good; Infants, 10, new-comers. The general award is good. Standard III contains some backward children.

Class subjects.—Singing—sol-far, good. Songs were rendered with much taste. Composition, exceptionally good. Recitation, good (above the average). Mental arithmetic, good generally, only fair in III. Geography, good generally, very fair in IV. and III. Good object lessons have been given, and history readers have been intelligently used. Intelligence is well developed.

Industrial training.—Needlework is good in all grades. Some of the finer work is quite above the average. Cutting-out by the older girls requires more practice. The sewing machine has been successfully taught. Cookery lessons, through changes and sickness of teacher, have not been regular. These lessons are soon to be regularly followed. Laundry work on the whole is good, but it is absolutely necessary that *all* the girls who are shortly to leave the school should take part in some of the washing.

Physical training, &c.—This is in every respect first-rate. The free exercises are performed with precision and spirit, and the marching is unusually good. The girls have had several treats, and various outings to the seaside.

Health.—During the year there have been three deaths from consumption, one in March, 1906, and the others early in 1907. There was in July an accidental death from burning. An epileptic girl may shortly be sent to a home. Of three girls in the infirmary to-day one has had pneumonia, one has rheumatism, and one, whose heart is weak, has had influenza, followed by pleurisy. There has been quite an epidemic of influenza, and cases other than those mentioned are one each of pneumonia, chicken-pox, and tonsilitis.

Conduct.—Offences which have called for correction include disobedience, careless work, uncleanliness, and stealing sweets. There are two or three girls here whose conduct has given a good deal of trouble, but on the whole the behaviour has been good. A system of rewards help towards this end. The two girls noted as absconders were decoyed away by their parents.

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* Two of these are over 16.

General remarks.—The health is again the least satisfactory feature. It must, however, be said that on the day of inspection, the majority of the girls were healthy-looking and in good spirits; some of them perhaps over-eager. The lessons learnt here in refinement of dress and manner are not likely to be readily forgotten, and in this connection the schoolroom deserves a share of the credit.

St. Elizabeth's (Liverpool).

Visited.—19th March, 23rd January, 29th May, and 13th September, 1907.

Inmates.—Total number in school, 103; voluntary cases, 0; on licence, 5; absconded, 0.

Staff.—The school is in charge of Sisters of Mercy. Additions to the staff are a machinist, an assistant laundress, and a kitchen-maid.

Premises.—There is no structural alteration. The lavatory and some of the dormitories need recolouring, but the premises were clean throughout. The laundry appliances have been improved.

Standards with awards.—Standard VI, 4, good; Standard V, 11, good; Standard IV, 18, very fair; Standard III, 16, fair; Standard II, 25, good; Standard I, 9, good; Preparatory, 15, making good progress. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, good Recitation, good. Mental arithmetic, good in VI, V and II, very fair in IV and I, fair in III. Geography, good generally, very fair in IV and III. Some useful object lessons have been given. Intelligence is developing on good lines.

Industrial training.—Needlework has scarcely received as much care as usual this year. A couple of girls have an idea of cutting-out simple undergarments. Nearly all the work done is in specimen form. The stitches in the lower standards were creditable, and a few girls in the upper standards did beautiful work. Cookery lessons are given to the older girls by a diplomatised teacher for three months in the year. There is no outside laundry work done here, and the work done for the school is only fair. Disposal appears to be well looked after, and real ability in a girl is carefully developed.

Physical training, &c.—A good display of drill with bars and dumb-bells and gymnastic marching was given. This is taken daily. The girls go for walks every week, and have had a few outings.

Health.—In September a girl fell over the banisters, and was in hospital five weeks, where she underwent the operation of trephining, and is now going on well. Another case which caused some anxiety was one of pneumonia, which made a good recovery. Febricula ophthalmia and chorea are other ailments reported. The teeth receive attention.

Conduct.—The principal faults recorded are destroying clothing and school property, untruthfulness, impertinence, disobedience, and laziness. Several girls have given trouble in the dormitory from time to time. The schoolroom discipline is not satisfactory.

General remarks.—The school has so far continued its work upon much the same lines as heretofore. The proposed improvements in industrial training will be a matter for congratulation when carried out.

Blackbrook House, St Helens.

Visited.—15th March, 7th February, and 24th October, 1907.

Inmates.—Total number in school, 120; voluntary cases, 4; on licence, 3; absconders, 0.

Staff.—The staff consists of Sister Mary Vincent and seven Sisters of the Sacred Heart of Mary, with one lay assistant. Additions to the staff are a teacher of dressmaking and an assistant sewing-mistress.

Premises.—The premises were clean throughout. Much has been done to adorn the interior by painting in bright colours, and by providing pictures and coloured photographs. Fire drill has been introduced. The clothing has been improved.

Standards with awards.—Standard V, 7 good; Standard IV, 20, good; Standard III, 20, very fair; Standard II, 23, good; Standard I, 21, good; Preparatory, 26, making progress. The general award is good.

Class subjects.—Singing—staff notation good. Composition, good. Mental arithmetic, good in IV, II and I, very fair in V, fair only in III. Geography, very fair in IV and III, good otherwise. Recitation, good. Object lessons are given to the juniors, and history and domestic economy readers have been in use. The juniors have some kindergarten. The development of intelligence is on good lines.

Industrial training.—The improvement in needlework in all its branches is astonishing. All the children sew and knit. The work of Grade III is carefully done, and each girl has completed several garments; all the girls are evidently kept very busy. It is very gratifying to find two large classes of older girls learning dressmaking. The cutting-out, fitting and machining done on the day of the visit proved the industry of the girls and staff. Cookery has made much headway, but lessons under a new Sister have been well commenced. Notebooks will in future be kept. Laundry work is good as far as it goes, but it would be an advantage to have a greater variety of work. There is much improvement in the colour of the clothes. Disposal appears to receive careful attention.

Physical training, &c.—A sergeant visits weekly and takes the girls in a course of free exercises and gymnastic marching. Walks are taken frequently, and various treats have been enjoyed.

Health.—There have been two deaths; one from hepatitis in October, and one from phthisis in January. Two girls have scarlet fever, and there have been single cases of measles, pneumonia, and ophthalmia. The appearance of the girls is fairly good; but there are two at least who will never be fit for industrial training.

Conduct.—During the summer an attempt was made by a few girls, who had been associates before admission, to upset the discipline; six of them went to Liverpool without leave, and one afterwards absconded. The two ring-leaders were transferred to other schools, and apart from minor faults the general conduct has since been satisfactory.

General remarks.—The reception of a large number of girls on transfer from other schools has rendered the work of the staff anything but easy so far. Tactful management, however, has smoothed over difficulties, and the school seems now to have settled down to a useful career.

Gordon House, Isleworth.

Visited.—18th July, 2nd July, and 12th February, 1907.

Inmates.—Total number in school, 70; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss M. L. Croisdale. There have been changes of clerk, needlewoman, and assistant matron.

Premises.—The premises were clean and in order throughout. There have been no structural alterations.

Standards with awards.—Standard VI, 9, good; Standard V, 4, good; Standard IV, 11, good; Standard III, 5, good; Standard II, 16, good; Standard I, 7, good; Preparatory, 18, making good progress. The general award is good.

Class subjects.—Singing—sol-fa, good, but the voices are not well produced; staff notation is recommended. Composition, good. Recitation, good. Mental arithmetic, good throughout. Geography, good. History readers have been in intelligent use. Good object lessons have been given. Intelligence is well developed.

Industrial training.—Needlework is good on the whole; a great number of girls can work the machine, and most of the older girls assist with dressmaking, The cutting out of undergarments requires more practice, but the fine needlework and knitting are particularly well done. Special cookery and housewifery lessons are given by a visiting teacher. The girls have a very fair knowledge of the values and prices of foods. As most of the girls are very young on entering the school, it would be well to allow them, when old enough, as much opportunity as possible of handling money, looking in shop windows, and sometimes making purchases. Laundry work has improved very much, the work done to-day being quite up to the standard of other good schools. Due provision is made for disposal and after-care, and the Girls' Club is a valuable help in this connection.

Physical training, &c.—Swedish drill is taken in two sections by the superintendent and the assistant-teacher respectively. The exercises are ideal for a girls' school, and were admirably performed throughout. Many of the girls take a keen interest in gardening. Recreation generally is well arranged for.

Health.—The health has again been good. A few cases of skin disease, with one each of tonsilitis and chilblains sum up the list.

Conduct.—Occasional laziness, disobedience, neglect of work, and pilfering are the only faults recorded. Aided by a mark system the discipline appears thoroughly sound.

General remarks.—The school shows evidence of capable management at all points. The suggested system of grouping in the schoolroom should enable girls of ability to be advanced more promptly than hitherto.

Elm House.

Visited.—10th July and 18th June, 1907.

Inmates.—Total number in school, 39; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss A. E. Stevens (c). The teacher, Miss Davies, left 7th February, 1907, and was succeeded on 11th February, 1907, by Miss Ethel G. Blayney (t. & c.).

Premises.—The laundry has been supplied with suitable fittings, and is now well equipped for its purpose.

Standards with awards.—Standard V, 6, good; Standard IV, 7, good; Standard III, 9, very fair; Standard II, 9, good; Standard I, 5, good; Preparatory, 3, good. The general award is good.

Class subjects.—Singing—sol-fa will now be resumed. Composition will be taken throughout. Recitation, good. Mental arithmetic, improving, good, except in III. Geography, very fair. History readers will now be used throughout. Domestic readers have been used and some useful object lessons given.

Industrial training.—Needlework is very fair; some of the elder girls sew well, but cutting-out requires more practice, and the seniors might well learn the use of the sewing machine. Cookery is taught by a diplomatised teacher, and the girls show intelligence in answering, though they are not well up in the prices of foods or the amounts of ingredients required in ordinary dishes. Laundry work is good on the whole, and some of the elder girls iron well.

Physical training, &c.—Besides the ordinary Swedish exercises there is a new game, basket ball, introduced by the present teacher, which is much enjoyed by the girls and affords useful out of doors recreation. Walks are taken regularly and occasional treats given.

Health.—The general health has been good. One girl suffering from synovitis of the hip-joint died in hospital, but the

only other cases calling for treatment since November, 1906, have been a case of influenza, one of anæmia, one of otorrhœa, two of eczema, one of defective vision, and two of slight injuries. Two girls are shortly to have adenoids removed. The teeth appear to be well cared for.

Conduct.—Beyond a few cases of insolence to officials and occasional laziness or deceit, there has not been much to complain of, and the general tone of the school is encouraging.

General remarks.—There is a gratifying improvement in the schoolroom instruction, and altogether the outlook is promising.

Maurice Girls' Home.

Visited.—21st June and 21st August, 1907.

Inmates.—Total number in school, 32; voluntary cases, 16; on licence, 4; absconders, 0.

Staff.—Superintendent, Miss H. Cartwright. Schoolmistress, Miss M. Cartwright. Miss B. Harris was appointed assistant matron, 1st February, 1907, and a non-resident laundress was appointed March, 1907.

Premises.—The school was removed to the new premises at Ealing in January, 1907. All parts are in good condition.

Standards with awards.—Standard VI, 2, good; Standard V, 6, very fair; Standard IV, 7, good; Standard III, 7, very fair; Standard II, 2, very fair; Standard I, 6, very fair; Preparatory, 2, making progress. The general award is very fair. Arithmetic is weak.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good in Standards II and IV, very fair in other standards. Mental arithmetic, fair in Standards I, II, III and V, good in IV and VI. Geography, very fair in all classes but III and IV, where it was good. Object lessons, good.

Industrial training.—Needlework has improved, but it is desirable that the girls should now get to more advanced work, and a little fancy work, to be performed during recreation time might with advantage be introduced. Practice in cutting-out should be encouraged. The girls assist in the laundry and are doing good work—the clothes being nicely washed and ironed. Cookery lessons are given weekly by a diplomatised teacher. Useful lessons have been given, but a more careful supervision of the notebooks than at present kept is desirable.

Physical training, &c.—A special teacher of drill attends weekly, but in addition to this, the girls are drilled daily by the schoolmistress. The exercises are on Swedish lines, and were well performed to-day. Breathing and marching exercises were good. Outings to Kew Gardens and Hampton Court have been enjoyed. The girls' small private gardens are well appreciated and carefully tended. A good display of fire drill was exhibited—the girls leaving their dormitories in the time of one minute

Health.—There has been one severe case of diarrhœa, but with this exception the health has been perfect. The girls looked pictures of good health on the day of the visit.

Conduct.—There are very few offences recorded, and these are only trivial—chiefly cases of indolence or disobedience. The service girls are, on the whole, giving satisfaction.

General remarks.—There is a decided improvement in the appearance and behaviour of the girls. Notwithstanding the upset which the removal from the old to the new premises must have involved, there is much evidence of steady diligent work.

King Edward.

Visited.—6th June and 9th July, 1907.

Inmates.—Total number in school, 98; voluntary cases, 0; on licence, 8; absconders, 0.

Staff.—Superintendent, Miss Russel. Miss Garton, assistant teacher, left on 8th April, 1907, and was succeeded by Miss Heathcote (c.) on 20th April, 1907. There has also been a change of laundry mistress.

Premises.—There have been no alterations in the premises during the year. All parts are kept clean and in good order.

Standards with awards.—Standard VI, 4, good; Standard V, 20, good; Standard IV, 20, good; Standard III, 18, very fair; Standard II, 14, good; Standard I, 10, good; Preparatory, 12, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Mental arithmetic, good generally. Geography, very fair. History readers have been used, and some object lessons have been given to the juniors who have also done some drawing.

Industrial training.—The needlework, including sewing knitting, and cutting-out, done in the schoolroom, is of excellent quality; stocking-darning is exceptionally good. The work done in the sewing-room is also good, general repairs have greatly improved. The laundry work shown is fairly good, but the girls do not appear to have a sufficiently intelligent idea of their work; the colour of the clothes requires improving. Special cookery lessons have been given by a visiting teacher. Some of the dishes cooked were good, others were very fair; more practice is required.

Physical training, &c.—Physical exercises and marching are taken regularly each day, and are good. Walks are taken at least once a week, good use is made of Victoria Park, and occasionally there are excursions to Epping Forest. Each girl has at least a fortnight at the seaside Home.

Health.—There were 11 cases of scarlet fever in the late summer of 1906, but mostly of a mild character, and all made good recoveries. Otherwise the health has been very good.

Conduct.—One or two girls have now and then been very troublesome, but have much improved latterly. Generally, the year has been a quiet one. The mark system continues to work well.

General remarks.—The school is a large one, and receives more than its share of big and backward girls. It is, therefore, all the more creditable that there is comparatively little trouble and that the results are as good as they are.

Nazareth House (Isleworth).

Visited.—27th June and 5th July, 1907.

Inmates.—Total number in school, 113; voluntary cases, 4; on licence, 5; absconders, 0.

Staff.—The school is in charge of the Sister Superior and five Sisters of Nazareth, four of whom are in the schoolroom. One sister has been added to the teaching staff (Sister Frances Josephine Callan).

Premises.—A new laundry has been built. All parts of the premises are beautifully clean and in good order.

Standards with awards.—Standard VI, 15, good; Standard V, 20, good: Standard IV, 26, good; Standard III, 19, good; Standard II, 16, good; Standard I, 8, good; Preparatory, 8, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good. Mental arithmetic, good. Geography, good. History, good. Good object lessons and kindergarten for the infants had been taken. The development of intelligence is good.

Industrial training.—Needlework is good (quite above the average); all the girls can sew well. The older girls cut-out and make beautiful under-clothing, and have a very good idea of dressmaking. All the test work done was of excellent quality. Cookery lessons are given by a diplomatised teacher on broad lines, and should be useful either in service or in the girls' own homes. The values of foods, and the prices and quantities required have been well studied. Laundry work is good; the clothes are beautifully washed and ironed, and, although no outside work is taken, a good variety of articles is supplied for practice. Answers on theory were smartly given. General housewifery receives attention, the girls have a good knowledge of turning out and cleaning different rooms, and are well taught generally.

Physical training, &c.—The physical exercises are carefully selected and very well carried out. The skipping drill was most effective. Organised games are played. In the summer months the fine garden and field are made ample use of, and boating and interesting excursions made during the holidays.

Health.—There has been very little sickness during the twelvemonth. A girl suffered from chorea, and later from enlarged glands, but is improving in general health. Two cases of corneal ulcer are noted, and there is at present a girl with bad eyes. By

falling in the dining-hall a girl broke her collar bone, but it mended well. In addition to the medical officer's visit a dentist inspects all the teeth quarterly.

Conduct.—The conduct has given no trouble. A few girls have been corrected for quarrelling, being destructive, or idle.

General remarks.—Both the schoolroom work and the industrial training deserve a special word of praise. The practical work was good and the girls answered questions with much intelligence.

Stamford Hill.

Visited.—19th April, 1907.

Inmates.—Total number in school, 12; voluntary cases, 2; on licence, 0; absconders, 0.

Staff.—Superintendent, Mrs. Nasch. Schoolmistress, Miss Easterbrook (t. & c.), appointed 15th October, 1905. Kitchen matron, house matron and under matron.

Premises.—The house was formerly a family residence and is a square substantial building standing back from the main road at the top of Stamford Hill. The interior has been made at once attractive and suitable without extravagance. A fine outside iron staircase has been erected as an emergency means of escape, the stables have been turned to good account, and there is a particularly good garden.

Standards with awards.—Standard VI, 1, very fair; Standard V, 1, good; Standard IV, 1, good; Standard II, 2, good; Standard I, 1, good; Preparatory, 6, newcomers. The general award is good, a very promising start having been made.

Class subjects.—Singing—sol-fa. Composition, good. Recitation, good. Mental arithmetic, fair. History readers are in use. Geography and drawing are taught, and useful lessons in nature study, &c. are given.

Industrial training.—With only a handful of girls, and most of them very young, very little can be expected as regards industrial training. It was gratifying however to find that careful attention had been paid to this branch of the school's work. The bigger girls have plenty to do, and even the little ones are beginning to take an interest in domestic duties.

Physical training, &c.—Marching and suitable exercises are taken regularly under the direction of the schoolmistress. Cricket is played in the summer. Walks are taken frequently, a school library has been started, and the girls do not want for treats and outings.

Health.—The general health has been excellent. One or two girls came in with skin affections or in anæmic condition, but all were looking well on the day of the visit, except perhaps one girl of weak constitution.

Conduct.—The school started with some transfers from another school, and these caused a good deal of trouble and anxiety.

Most of them have now left, one being sent to a reformatory. The direct admissions give no trouble, and indeed nothing could be better than the present tone of the school.

General remarks.—The end of its first year finds this little school going on smoothly and happily as a well-ordered family with excellent influence at work. One would like to see a home like this with its full complement of girls.

Northumberland Village Homes.

Visited.—29th April, 15th May, 27th August, and 26th November, 1907.

Inmates.—Total number in school, 112; voluntary cases, 67*; on licence, 2; absconders, 0.

Staff.—Miss James, the superintendent, resigned soon after the inspection, and was succeeded by Miss M. Brigham (t. and c.). The schoolmistress, Miss Ross, left 31st May, 1906, and was succeeded by Miss Grace Douglass (t. and c.) 1st June, 1906. There have been two changes in the house matrons. The nurse left 28th February, 1906, and her place is temporarily filled by Miss Taylor.

Premises.—There has been no change in the buildings. The hospital has been re-laid with linoleum. The earth-closets are very undesirable, and should be replaced as soon as the managers can see their way to do so. A partition in the schoolroom is almost a necessity. It would be a great boon if the girls could have a gymnasium and recreation room.

Standards with awards.—Standard VI, 4, good; Standard V, 12, good; Standard IV, 24, good; Standard III, 17, very fair; Standard II, 20, good; Standard I, 16, good; Preparatory, 10, new-comers, and two exceptions. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Recitation, fairly good. Mental arithmetic, very fair in III, good in other standards. Geography, good. The development of intelligence is good.

Industrial training.—There is great improvement in the needlework done in the schoolroom, and general repairs in the cottages are very satisfactory, but the needlework is quite elementary, and not yet up to the standard of that of similar institutions. Very little cutting-out has been attempted. Practical cookery was done fairly well, but there was an absence of intelligence in answers on theory. The value of different foods should be studied, and the girls should have some idea of the respective quantities of ingredients required for simple every-day dishes. Laundry work, so far as it goes, is well done, but it would be an advantage if the girls could be allowed to deal with a greater variety of articles. At present the work is decidedly elementary. Thirteen of the older girls have taken sick nursing and passed the St. John's Ambulance Association examination.

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* Poor Law cases.

Physical training, &c.—The Swedish drill, taken by the schoolmistress, is good. All girls take the drill except those who are 14 years and over. There is a regular walk on Saturday. Various picnics are given at different times of year.

Health.—There was a death in February from pneumonia and pericarditis. Another girl, seriously ill with pericarditis, made a good recovery. A girl suffering from lupus was treated with X-rays. She improved, but is now to undergo further treatment. Other cases noted are measles, laryngitis, and scald of leg. There have been several cases of ringworm, but they are reduced to four obstinate cases.

Conduct.—There has been no serious trouble. A few cases of pilfering food, disobedience, neglect of work, &c. Three girls got up early one morning to pick apples in the garden. A mark system with rewards has been started, and is answering well.

General remarks.—The numbers still remain very low. It would be difficult to find any girls who in appearance are brighter, cleaner, or more neatly clad.

Plainmellor.

Visited.—15th and 16th May, 1907,

Inmates.—Total number in school, 18* ; voluntary cases, 0 ; on licence, 8 ; absconders, 0.

Staff.—Superintendent and teacher, Miss M. Mayers (c.). Staff is the same.

Premises.—There have been no alterations. All parts of the house are clean. Drain in the yard at present being repaired.

Standards with awards.—Standard V, 6, good ; Standard IV, 3, fair ; Standard III, 3, good ; Standard II, 2, very fair ; Standard I, 2, very fair ; Preparatory, 1, young child and delicate. Making satisfactory progress. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, in Standard V, very fair. Recitation, very fair. Mental arithmetic, good in V and III, very fair in I and II, poor in IV. Geography, good in III, IV and V, very fair in I and II.

Industrial training.—Elementary needlework is well done. Cutting out has not been attempted and the use of the sewing machine is not encouraged. The girls assist with the cooking, but no special lessons are given. All the older girls assist in the washing, and each in turn take part in the ironing, but the work of this department is quite elementary.

Physical training, &c.—There is a great improvement in the carriage of the girls, which is no doubt due to the splendid exercises introduced and taught, weekly, by a lady friend to the school. Free exercises, jumping, skipping, marching and organised games were well performed to-day. The girls have enjoyed many outings, entertainments and other treats.

* One girl too delicate for schoolwork.

Health.—There has been one case each of eczema, debility and erythema. The girl who suffers with spinal curvature has during the last few months become worse, and now spends most of her time on her back.

Conduct.—There has been very little trouble. The mark system is still in use. A few cases of idleness, rudeness, and disobedience are reported, but nothing serious. The service girls are doing well on the whole.

General remarks.—The institution is homely and the girls are well cared for, but are considerably behind others in similar institutions in their schoolroom work. The industrial work is all of a very elementary character. Towards the end of the year the Managers resigned the certificate, and the school is now closed.

Shipton-under-Wychwood.

Visited.—26th June, 11th July, and 14th December, 1907.

Inmates.—Total number in school, 32; voluntary cases, 5; on licence, 0; absconders, 0.

Staff.—The superintendent, Miss Lawers, left 30th June, 1906, and was succeeded by Miss A. A. Eliot, 2nd July, 1906. The schoolmistress, Miss Bowman (c.), left 27th December, 1906, and was succeeded, 31st December, by Miss Eliza Weller (c.). There has also been a change in the post of laundry matron.

Premises.—The kitchen, scullery, and passages have been painted, and a new stove put in the laundry. The laundry tubs should be made to drain away, and water should be supplied to them from taps. The whole building was beautifully clean.

Standards with awards.—Standard VI, 2, fair; Standard V, 5, fair; Standard IV, 8, poor; Standard III, 8, fair; Standard II, 4, fair; Standard I, 4, fair. The general award is fair.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and VI, fair. Recitation, good. Mental arithmetic, poor. Geography, fair. The development of intelligence is below the mark. The school is not furnished for teaching geography. There should be a map of the British Isles and another of England as a beginning.

Industrial training.—Needlework has been carefully done in the schoolroom, and repairs well managed in the sewing room. Although the work is elementary it is carefully and intelligently done. Laundry work shows much promise; there is a great improvement this year in the work. Cookery lessons have been given regularly each week by the kitchen matron, and notebooks have been kept. The older girls do the cooking for the staff, and so get a fair amount of practice. The record of girls who have left is now being properly kept.

Physical training, &c.—The free gymnastics are well executed and with a little more finish would be really good. The drill would be much more effectual if the girls wore

shoes. By a re-arrangement of work the elder girls have more recreation.

Health.—A girl fell down the stairs and sustained concussion of the brain, she was nursed for a fortnight, but died of meningitis on 30th July. There has been no serious illness, but girls of poor health have been receiving care, *e.g.*, anæmia, cholecystis and dyspepsia. Two have had conjunctivitis, and there has been some rheumatism. There is one girl who should be removed from the school; she is feeble-minded, and is an incipient epileptic.

Conduct.—Girls have been corrected for temper, insolence, laziness and disobedience. The offences have not been great, and the general tone appears to have improved considerably of late. The mark system has been improved and girls are able to earn money at their industrial occupations.

General remarks.—Constant changes in the staff have played havoc with the schooling. The present teacher is doing well, but needs some assistance to remedy the abnormal deficiency. In other respects there is ground for congratulation, especially as regards the improved appearance and demeanour of the girls.

Bath.

Visited.—8th May and 18th April, 1907.

Inmates.—Total number in school, 80; voluntary cases, 0; on licence, 18; absconders, 0.

Staff.—Superintendent, Miss A. L. Noyes. The assistant teacher, Miss M. A. A. Broome (c.), left 20th December, 1906. Miss J. Southern (ex p.t.) was appointed 1st February, 1907.

Premises.—The premises were clean throughout.

Standards with awards.—Standard VI, 3, good; Standard V, 13, very fair; Standard IV, 16, very fair; Standard III, 18, very fair; Standard II, 17, good; Standard I, 10, good; Preparatory, 3, new-comers. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, very fair. Recitation, good. Mental arithmetic, very fair generally, poor in V. Geography, good. Useful object lessons have been given to the juniors. The development of intelligence is very fair.

Industrial training.—Needlework is good generally. All the older girls do fine work in beautiful style, but a little more practical work might be introduced. It would be an advantage to the older girls if they could have more practice in cutting-out and machining. Cookery lessons are given by a diplomatised teacher at a centre. Notebooks are good. Answers fairly satisfactory. Laundry work is good; a fair variety of articles are washed and ironed in a creditable fashion. Care should be taken that all the older girls receive instruction in this department. Disposal is carefully attended to.

Physical training, &c.—Free gymnastics, on Swedish lines, are taken by the schoolmistress, and some of the girls do some

applied work in fairly good style. The importance of correct position should be borne in mind. Walks are taken daily, and the whole school had a month's holiday at Seaton in the summer.

Health.—A girl with synovitis has been removed to hospital. There has been a case of cellulitis, and various minor skin complaints are recorded, but there has been nothing of a serious nature. Girls, whose sight require it, are fitted with glasses. A dentist visits once a quarter.

Conduct.—This appears to have been good all through the year. Deprivation of privileges, and the mark system carrying money awards, seem to have proved sufficient to deal with such faults as have occurred.

General remarks.—Whatever its structural drawbacks, the school will never sink into mediocrity while there continues the personal interest of Miss Sheppard and other members of the committee in past and present inmates.

Staffordshire.

Visited.—27th February and 13th March, 1907.

Inmates.—Total number in school, 48; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss Heslop. There has been no change in staff.

Premises.—There has been no change in the premises. All parts were beautifully clean.

Standards with awards.—Standard V, 1, good; Standard IV, 8, good; Standard III, 14, good; Standard II, 11, good; Standard I, 11, good; Preparatory, 2, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good. Geography, good. Recitation, good. Composition in V, good. Object lessons had been given to the lower standards, and the upper standards had taken a course of domestic economy.

Industrial training.—Needlework is taken in two groups; the plain work is of good quality and particularly clean. A little more should be attempted in machining and dressmaking. Each girl assists in making her own service outfit. Laundry work is most intelligently done; some of the girls are capital ironers; the work done shows careful training. Cookery lessons on good lines are given in each home by its respective matron. Each girl worked independently on day of visit and produced good results, every dish being a thorough success. The present recipe books are going to be made still more helpful by the addition of useful hints on cooking.

Physical training, &c.—The free gymnastics and marching were well executed. Full advantage is taken of the country for blackberrying, flower gathering, walks, &c., and in the winter time Christmas tree, magic-lantern entertainments, &c., have been given.

Health.—The health has been good. Two cases of chicken-pox occurred in April, but the infection did not spread. There have been a few skin troubles, a case of sore eyes, and cough. Many disorders are, no doubt, averted by the exceeding care of the supervision. The children's teeth also receive proper attention.

Conduct.—There was a case of stealing money in July. Disobedience and wandering about the dormitory at night are some of the troubles which have had to be contended with. The mark system is regularly worked.

General remarks.—Its bright homely features continue to make this school one of the most attractive in the country.

Princess Mary Village Homes.

Visited.—14th and 15th June and 3rd July, 1907.

Inmates.—Total number in school, 179; voluntary cases, 21; on licence, 11; absconders, 0.

Staff.—Superintendent, Miss Wilkinson. The head mistress, Miss Young, left 21st July, 1906, and was succeeded by Miss Mary Adeline Wilkinson (c.) 13th August, 1906. Miss D. Baguley left 3rd November, 1906. Miss Bertha Ayrton (Art. 50) was appointed 13th August, 1906, and Miss Bessie Heys 15th April, 1907. An additional matron has been appointed in the laundry. There has been a change in the post of mother at the training home, and in the posts of three of the cottage mothers. The sewing matron, too, is new.

Premises.—The cubicles in the training home have been removed; there is now a large bedroom. New and safer stairs have been put in No. 9 cottage.

Standards with awards.—Standard VI, 7, good; Standard V, 17, very fair; Standard IV, 37, good; Standard III, 39, good; Standard II, 28, good; Standard I, 27, good; Preparatory, 20, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good (above the average). Mental arithmetic, fair in V and VI, very fair in III, and good in other standards. Geography, good. History readers have been in use. Object lessons had been intelligently taught throughout. Hygiene had been taken in the upper standards. The development of intelligence is good.

Industrial training.—Needlework is good generally; the elementary stitches are taught in the schoolroom, and the more advanced needlework and dressmaking are undertaken in the sewing-room. Every girl can sew and knit. There is a great improvement in the repairs. Cutting-out has been carefully taught, and most of the older girls have some idea of machining and dressmaking. Special cookery lessons are regularly given by a visiting diplomatised teacher. It was satisfactory to find the girls working independently of each other, and going about their work with a fair amount of confidence. Laundry work has greatly

improved—the clothes are now a nice colour. Several of the older girls are good ironers. Conversational lessons are given and useful notes are kept.

Physical training, &c.—Swedish drill is taken in three classes, and in connection with this games are taught. The system is worth studying by other girls' schools. It is well conceived and executed. Regular walks are taken weekly. The girls' lives are brightened by healthy amusements, treats, and excursions, and a number of people interest themselves in individual children.

Health.—The general health has been good. In January there were three or four cases of influenza and pneumonia, and there have been a few cases of tonsilitis. A few cases of skin and eye trouble are mentioned, and a few girls with weak heart have to be carefully watched. A dentist visits quarterly and examines all the teeth. The medical supervision is very careful.

Conduct.—The conduct has not given much trouble. Pilfering, untruthfulness, disobedience, &c., have had to be corrected. The mark system works well, and a good tone obtains throughout the school.

General remarks.—Great improvements are noticeable in all departments, and this year particularly in the schoolroom and the physical training. In August, 1906, the school was honoured by an informal visit from H.R.H. The Princess of Wales.

St. Mary's (West Croydon).

Visited.—3rd and 4th July and 17th July, 1907.

Inmates.—Total number in school, 159; voluntary cases, 0; on licence, 7; absconders, 0.

Staff.—The school is in charge of Sister Mary Camillus Dempsey and eight other Sisters of the Order of Mercy. There has been no change in the staff.

Premises.—There has been no change in the buildings. The auxiliary home at Whitstable was opened late in 1906.

Standards with awards.—Standard VII, 6, good; Standard VI, 22, good; Standard V, 14, good; Standard IV, 26, good; Standard III, 23, good; Standard II, 16, good; Standard I, 20, good; Preparatory, 23, good. Spelling in III and IV is weak. The general award is good.

Class subjects.—Singing—staff notation, elementary, singing good. Composition, in V, VI and VII, good. Recitation, good. Mental arithmetic, very fair. Geography, good in upper standards, very fair in the lower standards. Object lessons had been given. The development of intelligence is good.

Industrial training.—Needlework, including all the requirements of the Home Office scheme, is well done. Satisfactory notebooks are kept. A good attempt at dressmaking has been made. Several of the blouses and dresses shown are excellent for girls' work. Special cookery lessons are given weekly, and

excellent notebooks are kept. The dishes cooked by the six oldest girls proved a success in most cases. Laundry work requires care, the clothes are not a good colour, and generally the work does not compare favourably with that of the other departments of the school. Useful lessons on domestic economy have been given and notes taken.

Physical training, &c.—This is very well organised. The trunk and leg movements are better performed than those with the arms, but there is not much amiss in either case. Organised games are played, and the girls go in parties to the home at Whitstable.

Health.—The health has been good. Only one case has called for special notice, viz., a case of mental depression. The girl is still in the school, and though well does not seem in the spirits proper for a child. The various measurements are carefully kept.

Conduct.—The conduct has been good, and the girls for the most part are tractable. There is a mark system, and where this is ineffectual girls are deprived of treats or recreation.

General remarks.—There is little to add save a word of praise and encouragement to those who are conducting this admirable school.

Coventry.

Visited.—13th May and 26th April, 1907.

Inmates.—Total number in school, 50*; voluntary cases, 4; on licence, 4; absconders, 0.

Staff.—Superintendent, Miss S. Goulding. The assistant teacher, Miss Hopson (Art. 68), left 1st June, 1906, and was succeeded by Miss B. Harris, on 1st July, 1906, who left 31st August, 1906, and was succeeded on 17th September, 1906, by Mrs. Offerd, who left 21st December, 1906, and was succeeded by Miss Wilks (Art. 68), on 30th January, 1907. There has also been a change of junior matron.

Premises.—Three new outside offices have been built, and the playground levelled and re-gravelled. The premises were in good order and very clean, but are cramped and need better provision for escape from fire.

Standards with awards.—Standard VI, 1, good; Standard V, 2, good; Standard IV, 7, good; Standard III, 14, very fair; Standard II, 10, good; Standard I, 8, good; Preparatory, 3, making good progress. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good throughout. Mental arithmetic, very fair in III, good elsewhere. Geography, good. The general intelligence is good.

Industrial training.—Needlework is good. Repairs of all kinds exceptionally good, quite above the average. Dressmaking has received care, but might perhaps be practised on more practical lines than at present. Laundry work is conducted on good lines;

* Including one time-expired in January.

washing and ironing are of excellent quality; useful notebooks are kept in an intelligent manner. Cookery is taught at the technical centre, and each of the older girls receives in addition careful training in the kitchen under direction of the superintendent. An amount of work has been done during the year. Special lessons under diplomatised teachers have been given in needlework, dressmaking, laundry work, cookery, and housewifery, and these have been supplemented by well arranged domestic economy lessons in the schoolroom. The notebooks kept in connection with these classes should be of the utmost value to these girls in future.

Physical training, &c.—The girls went through an excellent series of Swedish exercises. Drill is taken for a short time every day, and owing to the kindness of friends recreative classes have been formed for dancing, &c. Hockey is played in the winter and walks taken as weather permits. The whole school is going for a fortnight's holiday at Rhyl at the end of May.

Health.—One girl died in May, 1906, from acute tuberculosis, and another, who is now in hospital, mentally deficient and suffering from psoriasis, is to be discharged. There has been a case each of ophthalmia (slight), adenoids, and otitis media. The general health has been satisfactory and the girls looked bright and well cared for. A dentist attends to the teeth.

Conduct.—The only serious case is that of a girl who had to be committed to a reformatory for continual pilfering. With this exception the conduct appears to have been very good; the remaining offences comprising a few only of laziness and disobedience and one of pilfering.

General remarks.—This is a well-managed, home-like and successful little school with an appreciative and genuinely interested committee. The school is, however, sadly in need of more elbow room, as has already been pointed out in a former report.

St. Elizabeth's (Salisbury).

Visited.—10th and 29th May, 1907.

Inmates.—Total number in school, 105*; voluntary cases, 45*; on licence, 0; absconders, 0.

Staff.—The school is in charge of Sister Cecile and five Sisters of St. Vincent de Paul. Miss A. Hawkes (ex p.t.) came as assistant teacher December 1906. There has been a change of laundress.

Premises.—The new building has been painted, and the new iron fire-escape ladders have been completed. The premises were clean throughout.

Standards with awards.—Standard VI, 9, good; Standard V, 12, good; Standard IV, 13, good; Standard III, 13, fair;

* Twenty-seven of these were over 16.

Standard II, 12, good; Standard I, 7, good; Preparatory, 11, good. The general award is good. Standard III have suffered from changes of teacher.

Class subjects.—Singing—sol-fa, good. The introduction of staff notation is recommended. Composition, good. Mental arithmetic, good generally, poor in III. Geography, good on the whole. Recitation, good. History readers have been in use. Good object lessons have been given. Intelligence is well developed.

Industrial training.—There is a great improvement in the general needlework, as all the girls now have regular needlework lessons. The stitches done as a test were good on the whole. Laundry work continues to be well done. Most of the senior girls can wash well and are good ironers. Cookery lessons are given by a diplomatised teacher at a local centre with satisfactory results. Good provision is made for disposal.

Physical training, &c.—Physical drill is taken by a visiting sergeant. The benefit derived from this would be far greater if arrangements could be made for two lessons a week, instead of one as at present. The girls have had several outings during the year, and walks are taken every week.

Health.—A delicate girl, who developed hip disease after being here three months, died in the infirmary in September. Another death from tubercular meningitis occurred in December. There have been four cases of tonsilitis, and there is at present one of measles, while another girl has a weak heart.

Conduct.—The girls seem to have given little trouble. Disobedience, obstinacy, idleness, rudeness, and so forth comprise all the faults recorded. Conduct is regulated by a system of rewards and medals.

General remarks.—The school showed to good advantage in all departments. The improvements noted last year are fully maintained.

Hull.

Visited.—27th June and 14th June, 1907.

Inmates.—Total number in school, 46; voluntary cases, 0; on licence, 5; absconders, 0.

Staff.—Superintendent, Mrs. Isabella Mackie. There has been a change of laundress.

Premises.—The drainage system has been remodelled, and the water supply improved. All parts of the premises were beautifully clean.

Standards with awards.—Standard V, 17, good; Standard IV, 11, good; Standard III, 9, very fair; Standard II, 6, very fair; Standard I, 2, very fair; Preparatory, 1, exception. The general award is good, making allowance for a short year.

Class subjects.—Singing, very fair; a beginning is being made with old notation. Composition, good. Mental arithmetic,

good on the whole, very fair in III. Recitation, very fair in upper groups, good otherwise. Geography, very fair. Some object lessons have been given. History readers might be introduced.

Industrial training.—Needlework is good on the whole, but the repairs require care. Each of the older girls should be required to mend her own clothes, and should complete at least one garment each year. Some of the senior girls assist with dressmaking, and several can work the machine. Stocking mending is very well done. Laundry work is good, but a greater number of the older girls should be entrusted with the finer work. Cookery lessons are given weekly by the schoolmistress, who is a diplomatised cookery teacher. The dishes on the whole were successfully handled, and questions on general cookery were intelligently answered. Care should be taken to make the girls as self-reliant as possible. Comparatively few of the girls seem to retain their places for any length of time. There is room for a better system of after-supervision.

Physical training, &c.—This is said to be modelled on the best elementary school lines, but it is far below the level of the average industrial school. Both the free exercises and the marching lack vigour and precision. The girls have no idea of marching in step; most of them do not seem to know their right foot from their left, what they really need is a course of Swedish drill under expert instruction. Walks are taken from time to time, and there was an outing at Hornsea last year.

Health.—A delicate girl had pneumonia in the winter, and appears to be developing consumption. Another is subject to St. Vitus dance, and does not seem to be benefiting by her stay here. Other cases noted are one each of herpes, measles, tonsilitis, and rheumatic fever.

Conduct.—A girl who ran away was brought back and appears to have settled down. Impudence, carelessness and bad habits account for the remaining entries.

General remarks.—The girls are so sleepy and unresponsive that the failure of many of them in service is not surprising. The managers are handicapped, however, owing to most of the girls being Education Act cases, and there being consequently no powers of control up to 18 years of age.

Windsor Street, Leeds.

Visited.—7th June and 22nd January, 1907.

Inmates.—Total number in school, 77; voluntary case, 1; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss M. A. Highmoor. There has been a change of laundry-maid.

Premises.—Hot-water pipes have been installed for warming the schoolroom and lavatory, and larger pipes have been fitted in the bathroom. All parts of the premises were clean and in order.

Standards with awards.—Standard V, 16, good; Standard IV, 15, good; Standard III, 18, good; Standard II, 13, good; Standard I, 5, good; Preparatory, 8, good. Work throughout was of exceptional quality. The general award is good.

Class subjects.—Singing—both notations, good instruction by a visiting mistress. Composition, good. Recitation, good. Mental arithmetic, particularly good. Geography, good. Object lessons have been given to the juniors. The girls are conspicuously bright and intelligent.

Industrial training.—Needlework, though not of the most elaborate description, is of the best quality. The work throughout—sewing, knitting, and repairing—is highly satisfactory. Most of the senior girls have a capital idea of dressmaking, and can work the sewing machine. The clothes dealt with in the laundry are plain, but are beautifully washed and nicely ironed. Cookery lessons are given weekly by a diplomatised teacher. The dishes cooked by the girls were a success; some intelligent answers were given on the respective values of foods, and the girls have a very fair idea of the prices and quantities of the different ingredients required. Good places are found for the girls, and, as a rule, they keep them well.

Physical training, &c.—Free gymnastics were performed with precision and finish under the direction of an instructor who visits weekly. Drill is taken for a few minutes daily by the resident staff. The girls march freely and hold themselves well. The month's holiday at Ruth was as successful as ever, and there have been several entertainments. There is a library of books and games for indoor recreation.

Health.—A girl who injured her leg two years ago is still attending the infirmary. Four cases of influenza are recorded. Two girls were in bed, one with tonsilitis, the other a case of high temperature. The general health has been wonderfully good. The teeth receive attention, and there is a good dietary.

Conduct.—The conduct, as usual, has given very little trouble. Occasional rudeness, idleness, and similar minor faults have occurred, but there has been nothing to call for special notice. There is a system of marks upon which small money rewards and various privileges depend.

General remarks.—The work of this school is characterised at all points by a conscientious thoroughness, which gives it a place in the very front rank of industrial schools.

Thorp Arch.

Visited.—24th and 22nd July and 27th September, 1907.

Inmates.—Total number of inmates, 97; voluntary cases, 0; on licence, 14; absconders, 0.

Staff.—Superintendent, Miss C. Levers. There has been no change in the staff.

Premises.—All parts of the premises were clean and in good order. There have been no structural alterations.

Standards with awards.—Standard VI, 5, good; Standard V, 15, good; Standard IV, 22, good; Standard III, 31, good; Standard II, 19, good; Standard I, 5, good. The general award is good. Work throughout is exceptionally neat and accurate, and the writing extremely good.

Class subjects.—Singing—good. Staff notation might well be developed. Composition, good. Recitations were well rendered in every class. Mental arithmetic, specially good. Geography, good. Drawing is well taught. Domestic science has been taken by the seniors, and good object lessons have been given to all. The girls are remarkably bright and intelligent.

Industrial training.—Drawing is good all through. Simple designing and object-drawing are special features. Scale-drawing would be useful for the senior girls. The needlework done by the older girls is a great improvement on that done last year, but more cutting-out should be encouraged. Stocking darning requires improving. Every girl who is old enough repairs her own clothes. The young girls sew well. Eighteen girls learn scientific dressmaking from a visiting teacher, and have done some excellent work. The outfit jackets, attempted this year for the first time, are very creditably done. All the work in the laundry is well done except the stocking washing, where the methods used are incorrect. Most of the older girls are good plain ironers, and some can do fancy ironing well. A short course of cookery lessons has been given by a visiting teacher. The dishes taught are plain and useful: prices, ingredients and values are well known.

Physical training, &c.—Free exercises on Swedish lines and some applied gymnastics are taken twice a week. The displays given were first-rate, careful attention being paid to style and finish. The girls are looking forward to a day at Scarborough, as a result of a successful play they performed in the winter. Great use is made of the fine playfield, and recreation generally is well provided for.

Health.—Health has been good. A single case of diphtheria, two of tonsilitis, and a few influenza colds complete the list of ailments. A new girl has a weak heart, which may necessitate her discharge, but several cases sent on trial in a similar way have done remarkably well here. In addition to the doctor's visits a dentist attends once a quarter.

Conduct.—Discipline is regulated mainly by the mark system, and beyond a few minor faults there has been little trouble. One great disappointment occurred, however, when a girl of much promise, who was being specially trained, absconded, and had to be sent to a reformatory. The girls as a whole are as happy and natural in manner as can be desired.

General remarks.—The Leeds Education Committee are to be congratulated on possessing so efficient a school. Disposal is well looked after, and a successful reunion of old girls was held recently.

York.

Visited.—25th July and 23rd July, 1907.

Inmates.—Total number in school, 49; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Miss R. Salsbury took up the duties of superintendent 10th April, in succession to Miss Parkinson. On the same date a new assistant matron and sewing matron were appointed, and the schoolmistress, Miss Chambers, left. Miss E. Boyes (ex p.t.) was appointed temporarily 18th March, and a trained teacher is to join soon. There has also been a change of general assistant, so the entire staff is new.

Premises.—The roof of the playroom has been raised, and that room has been converted into an excellent schoolroom. The open shed has been closed in and made into a workroom, and the present schoolroom will be used as playroom. The house has been re-furnished throughout in a tasteful manner, reflecting much credit upon those responsible. All parts were thoroughly clean.

Standards with awards.—Standard VI, 6, good; Standard V, 9, good; Standard IV, 13, good; Standard III, 9, very fair; Standard II, 8, very fair; Standard I, 4, very fair. The general award is good. In view of the disorganised year the work is most creditable.

Class subjects.—Singing, very fair, with some instruction in sol-fa. Composition, good. Recitation, good. Mental arithmetic, good in upper, very fair in lower classes. Geography, good in VI. and V, very fair otherwise. Some useful object lessons have been given. Intelligence is developed on good lines.

Industrial training.—An amount of elementary needlework has been done; all the girls have been kept busy making underclothing, &c. for immediate use, consequently the actual training has had to suffer a little. It is hoped, however, that special training in plain needlework, including cutting-out, and elementary dressmaking will soon be resumed. Special cookery lessons have been given weekly to a number of the older girls at the cookery centre, and note books have been kept. The girls assist with the general cooking in the home, and some manage simple dishes very well. It is intended in future that special cookery lessons will be given at the school by the matron. Laundry work has, in some respects, improved lately; the clothes are a better colour and a few of the girls iron well. Conversational lessons are required in this department, they would be a means of bringing about more intelligent work.

Physical training, &c.—Drill has practically fallen into abeyance. It would be well, if possible, to introduce Swedish drill two or three times a week. The girls go for walks twice weekly, and are going to Scarborough for a fortnight this year. Recreation generally is well arranged.

Health.—The most serious case has been one of pneumomia which recovered well. There have been one or two fainting attacks, but the general health has been very good. A valuable aid in this direction is the appointment of a dentist.

Conduct.—In spite of the unsettling effect of the changes in staff the general conduct in the school has been satisfactory. There have been the usual petty faults, and one or two girls figure frequently, but the chief trouble has been with girls recalled for misconduct on licence. This appears to be due to their being sent out unduly early at the instance of local authorities.

General remarks.—The managers are to be congratulated in that, thanks to their efforts, the school has come through the year so well, with every hope of a successful future. Provision is made for the supervision of girls on licence. In this connection a home for recalled girls, or those changing situations, would be of benefit. The school has had, perhaps, more than its share of backward and neglected girls of 13 sent to it from London.

Yorkshire Roman Catholic.

Visited.—23rd July and 10th June, 1907.

Inmates.—Total number in school, 102; voluntary cases, 11; on licence, 1; absconders, 0.

Staff.—The school is in charge of Sister Magdalen and ten Sisters of Charity. There are no changes in the staff.

Premises.—No structural alterations have been made. The premises were clean throughout.

Standards with awards.—Standard VI, 6, good; Standard V, 21, good; Standard IV, 16, good; Standard III, 16, good; Standard II, 20, good; Standard I, 13, good; Preparatory, 3, good. The general award is good.

Class subjects.—Singing—sol-fa, good. The voices are particularly well trained. Staff notation is recommended. Composition, good in VI and V; this subject might be taught throughout. Recitation, good. Mental arithmetic, good. Geography, very fair. History readers have been in use. Good object lessons have been given. Intelligence is well developed. The children have much improved in brightness.

Industrial training.—Needlework is very fair; stitches are satisfactorily taught and some good work has been done, but this training fails to be of much use when not put into general practice—the repairing of garments is below the average. Many of the senior girls work the sewing machine, and some fairly good attempts at cutting out have been made. Cookery lessons are given by a diplomatised teacher. Most of the dishes were successfully managed. A better knowledge of the prices of foods should be acquired. Laundry work is well done; the treatment of flannels and blankets deserves special commendation. Many of the girls who are in their last year can wash and iron well. Disposal and after-supervision are well organised.

Physical training, &c.—A capital display of drill on Swedish lines was given. This is taken twice a week by all the girls. There have been several outings and entertainments, including a day at Cleethorpes, and a very successful play which the children gave before a large audience at Christmas. The play

field is made use of in summer, and there is no lack of games and books for winter evenings.

Health.—A girl suffering from hœmophilia had to be sent home as unfit for service. Single cases are noted of tonsilitis, tubercular glands, and abscess, but the general health has been excellent. The teeth receive attention at the hospital.

Conduct.—No serious faults are recorded. With the aid of a mark system, the conduct appears to have been very good.

General remarks.—The school passed a successful examination, and there is evidence of careful management in all departments.

Beckett Home.

Visited.—5th and 6th June, 1907.

Inmates.—Total number in school, 30*; voluntary cases, 5*; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss Verrall. There have been changes of kitchen matron and laundry matron.

Premises.—Some much-needed painting has been done, and the staircase and one corridor have been much improved in appearance by matchboarding. The premises, though none too roomy, were clean throughout.

Standards with awards.—Standard IV, 14, good; Standard III, 4, very fair; Standard II, 3, fair; Standard I, 4, fair; Preparatory, 5, making progress. Work has distinctly improved in style. The general award is very fair.

Class subjects.—Singing—elementary sol-fa, good. Composition might be introduced. Recitation, good. Mental arithmetic, good in IV and III, fair otherwise. Geography, very fair in IV and III, poor in II and I. History readers have been used to advantage. Intelligence is being developed on good lines.

Industrial training.—Needlework is greatly improved; every girl can sew and knit, and each repairs her own clothes. The work is plain, but every garment is carefully sewn and shews intelligent instruction. Cutting-out requires more practice. Some of the older girls might be taught the sewing machine. The girls who assist in the kitchen get some training in cookery, but special lessons have not been given this year. Prices and quantities of ingredients required should be better studied and a course of regular special lessons should be followed. Laundry work is good except that stocking washing requires more care. Most of the senior girls wash and iron well. The girls appear to do fairly well in service for a time, though many eventually drift back to their friends.

Physical training, &c.—Free exercises were done in fairly good style, though rather lacking in vigour. Care should be taken,

* Including two over 16.

too, that all parts of the body receive their fair share of development. Walks are taken daily in the summer. There are books and games for winter evenings.

Health.—Health has been good. A few eye and skin troubles are all that are recorded. At the same time the majority of the girls do not compare favourably in appearance with those in most schools.

Conduct.—Rudeness and disobedience are the chief faults. Discipline is largely regulated by means of a mark system.

General remarks.—The school suffers from defects incidental to its small size, but a praiseworthy effort has been made to enliven the work in the schoolroom. There does not seem to be any regular system of keeping in touch with the girls after they leave.

Aberdeen Female.

Visited.—19th April and 19th February, 1907.

Inmates.—Total number in school, 62; voluntary cases, 3; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss Melvin. Miss Duncan, the senior teacher, l ft 4th January, 1907, and was succeeded on 22nd February, by Miss Isabella Laing (c.). Miss Walker left 11th January, 1907, and was succeeded by Miss Bessie Gray Macallan.

Premises.—There has been no change in the buildings. It would help supervision and save cold draughts in the house if a way were made to the play-shed from the class-room.

Standards with awards.—Standard VI, 7, good; Standard V, 12, good; Standard IV, 14, good; Standard III, 6, good; Standard II, 12, good; Standard I, 7, good; Preparatory, 4, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Recitation, good. Mental arithmetic, fair in III, good in other standards. Geography, good. Nature knowledge had been taken throughout. The development of intelligence is good.

Industrial training.—Needlework is good. The girls in Grade III are doing excellent work, including dressmaking, cutting out, and machining; they succeded in carrying off a first prize, among others, in the late Home Office competition. It is gratifying to see the improvement in Grade I work, but it is also desirable to see those girls who are soon to leave the school receiving special attention. Each girl in her turn has had training in general cookery and laundry work, but in future special lessons are to be given in these branches by a diplomatised teacher. Laundry work is very creditable. Two first prizes and a third prize were gained for work at the Liverpool Exhibition. It is satisfactory to note that five girls received the prize for staying a year in the same situation.

Physical training, &c.—Some free gymnastics and marching are given to the girls for an hour a week and for a short time daily.

When marching the girls' arms should move naturally by their sides. A drill entirely on Swedish lines is often found most serviceable for girls. There have been many parties and social gatherings. Eight girls received prizes for answers in Bible questions.

Health.—There was an epidemic of influenza in January, which completely disorganised the school. The most serious case was one of diphtheria in December, which made a good recovery. There have also been some cases of skin troubles, eczema, and abscess. An accurate record is kept of the weights and measurements of the children twice a year.

Conduct.—The conduct has given very little trouble; a few children have had to be corrected for disobedience, carelessness, or rudeness. There is no mark system.

General remarks.—This is a pleasant school to visit, both on account of its homely aspect and the nice manners of the children. It is easy to see that the girls' interests and future are well considered.

Aberdeen Roman Catholic.

Visited.—20th April, 20th February, and 18th October, 1907.

Inmates.—Total number in school, 130; voluntary cases, 0; on licence, 28; absconders, 0.

Staff.—The school is in charge of Sister Mary Stephen and five other Sisters of Nazareth. There has been no change in the staff.

Premises.—The new playroom and washhouse have been completed, and form a fine and useful addition to the school.

Standards with awards.—Standard VI, 5, good; Standard V, 4, good; Standard IV, 10, good; Standard III, 18, good; Standard II, 24, good; Standard I, 25, good; Preparatory, 44, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition in V and VI, good. Recitation, good. Geography, good. Mental arithmetic, good. Object lessons have been given. The development of intelligence is good.

Industrial training.—Needlework is improving, though much will have to be done to bring this school up to the level of others of its kind. All girls can now sew; about six of the seniors work the sewing machine, and a small attempt at dressmaking has been made. Cutting-out requires much more practice. Cookery lessons have been given by a visiting diplomatised teacher, the girls showed to advantage in this branch of training on day of visit, and useful notebooks are kept. There is room for improvement in laundry work, some of the clothes being a bad colour, evidently through insufficient rinsing. The girls' answers, however, on how to deal with stains, &c., were intelligent. Useful notes are kept on domestic economy. There are many girls who should now be spending more time at industrial work and learning the value of a steady day's work.

Physical training, &c.—The whole school go through physical exercises with dumb-bells. It would be well to substitute Swedish drill, giving play to every muscle of the body. Regular walks are taken. The nucleus of an excellent library has been presented by a kind friend of the school. In other respects the school appears well off for recreation.

Health.—There was a death from anæmia and gastric catarrh in July, and one girl was discharged on account of tubercular abscess. There have been some other cases of abscess and another of anæmia, which is said to be improving.

Conduct.—There have been a few cases of idleness, untidiness, and untruthfulness. The conduct does not appear to give any trouble.

General remarks.—The work in the schoolroom was neat and accurate. There are, however, too many in the lower standards. Mr. Cruden has earned the thanks of all concerned for the valuable help he has given.

Ayr.

Visited.—6th and 25th March, and 28th November, 1907.

Inmates.—Total number in school, 58 ; voluntary cases, 0 ; on licence, 4 ; absconders, 0.

Staff.—Superintendent, Miss M. B. T. Falconer (t. and c.) was succeeded as superintendent by Miss J. L. Burnett on 16th May, 1907. There have been several changes of laundress.

Premises.—The premises were beautifully clean throughout. The ventilation of the laundry has been improved.

Standards with awards.—Standard V, 8, good ; Standard IV, 9, good ; Standard III, 6, fair ; Standard II, 20, very fair ; Preparatory, 15, backward. The general award is very fair. Eight of the preparatory class have been more than a year in the school. The proportion in the lower standards is too high.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Mental arithmetic, very fair generally, poor in III. Recitation, very fair in V., good otherwise, though not always understood. Geography, very fair. Intelligence is very fair on the whole.

Industrial training.—Needlework is taught to all the girls. Every girl has made at least one garment and these are very creditably done. The little girls are quite clever knitters. A little dressmaking has been attempted and some of the older girls can machine. Cutting out should be taught on more practical lines. Laundry work is good ; an all round training being given. The work done on day of visit was very satisfactory with the exception of the wringing, a machine for this purpose is needed, especially for large articles. Cookery lessons are given regularly. Each girl, before leaving, helps for some time with the general cooking for the staff. The dishes taught are well chosen. The all important matter of disposal appears to be receiving commendable attention.

Physical training, &c.—The free gymnastics are good as far as they go, but they do not include exercises for the lower part of the body. This deficiency is, however, made good to some extent by football, which the girls play with enthusiasm. They get an occasional outing and frequent walks, but, in regard to lectures and concerts do not seem to be so fortunate as the boys.

Health.—The health has been very good all through the year. An epileptic girl had to be discharged as unfit for training, otherwise there has been no case out of the ordinary. Eye troubles and other ailments, including dental cases, are treated at the hospital. A quarterly inspection is made by the medical officer.

Conduct.—During the first six months of the year covered by this report the conduct was satisfactory; but later on the descipline was upset by a newly admitted girl, whose previous record was far from satisfactory; she was sent, eventually to a reformatory. Meanwhile there were two cases of absconding, and several of insubordination, refusal to work, and pilfering; and a number of girls have had to be dealt with for being out of bounds, and for holding communication with the boys in the neighbouring school. A good mark system might prove effective in helping to maintain discipline.

General remarks.—The girls have certainly improved in brightness and general demeanour, during the last year or two, and the outlook for the future is hopeful. More attention should, however, be paid to the lower classes, so as to bring on girls who are ignorant on admission.

Edinburgh Original.

Visited.—24th April, 9th May, and 15th October, 1907.

Inmates.—Total number in school, 74; voluntary cases, 0; on licence, 1; absconders, 0.

Staff.—Matron, Miss M. G. Lowe. Miss Balfour left temporarily in October, 1906, and her place was filled by Miss Syme. She, however, left on account of ill-health in January, 1907, and Miss Mary C. Gillespie is at present interim gardener and assistant matron. There have been four changes in the post of laundry maid.

Premises.—There has been no change in the premises.

Standards with awards.—Standard VI, 9, good; Standard V, 5, good; Standard IV, 15, good; Standard III, 12, good; Standard II, 12, good; Standard I, 10, good; Preparatory, 10, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Recitation, very fair. Mental arithmetic, good. Geography, very fair. Object lessons have been given to II., I., and Preparatory. The development of intelligence is good.

Industrial training.—Needlework is improving. The older girls assist with dressmaking and most of them can work the sewing machine. Cutting out should receive more care and

general repairs require close attention. Good work is now being done in the laundry. Useful note books have been begun. Washing is good and ironing generally satisfactory. Special cookery lessons have been given by the kitchen matron; these are on good lines, but should be continued through the summer. Useful note books are kept. Three ladies of the Committee have undertaken to visit girls who are in situations in Edinburgh.

Physical training, &c.—The instructress attends weekly to take the Swedish drill. There is a fine and well equipped gymnasium. It was unfortunate that the instructress was unable through absence from home to take the classes on the day of the visit.

Health.—There was a case of pneumonia in June which made a good recovery. A case of neuritis was sent to the infirmary for two months, and is much improved. Two cases of tubercular glands both yielded to treatment. There have also been cases of scabies, eczema, impetigo, ague, shingles, enlarged glands and boils. One girl had an epileptic fit. There was some influenza in February, and some girls who appear to be anæmic are improving under careful treatment. A dentist attends regularly to the girls' teeth.

Conduct.—The girls appear to give very little trouble. One girl was punished for frightening a younger girl, which resulted in nervous shock. A few cases of disobedience and untruthfulness, staying out beyond time allowed and going out without permission make up a very light list.

General remarks.—The work of the schoolroom is good, but the progress of the juniors cannot be quite satisfactory until an assistant teacher has been appointed. The school seems now to be working smoothly. It must, however, be borne in mind that to be really successful a superintendent's interest in the girls must continue long after they have left the school.

Leith.

Visited.—7th and 8th May, 16th October, and 11th November, 1907.

Inmates.—Total number in school, 60; voluntary cases, 0; on licence, 4; absconders, 0.

Staff.—Superintendent, Miss Mackenzie. The staff remains the same.

Premises.—There have been no alterations. All parts of the house are satisfactory.

Standards with awards.—Standard V, 18, good; Standard IV, 2, good; Standard III, 10, just good; Standard II, 14, good; Standard I, 7, good; Preparatory, 9*, making progress. The general award is good.

Class subjects.—Singing (sol-fa), good. Recitation, good. Geography, good in all classes. Mental arithmetic, good in

* Three of these are newcomers, but should appear in Standard II next year.

Standards IV and I; very fair in II and V; fair in III. Composition in Standard V, good. Object lessons have been given to all the classes. Intelligence is improving.

Industrial training.—Needlework is good—some of the garments are beautifully made. The school was successful in gaining several honours in a local competitive exhibition held in October last. Each girl is taught to make and mend her own clothes. Most of the older girls can cut out simple garments and are able to work the machine. Cookery is taught by a diplomatised teacher. Answers were intelligently given, and the dishes satisfactorily cooked. Laundrywork is well done on the whole. The clothes are a good colour, but there is room for improvement in ironing. Basket work has been introduced—some very pretty specimens were shown.

Physical training, &c.—A good display of club exercises was exhibited. Free exercises on good lines have, this year, been introduced. This is a step in the right direction, and it may be hoped that in a few month's time the drill may be a leading feature. Regular walks are taken. A liberal quantity of picnics and entertainments have been provided by good friends to the school, and have been fully appreciated by the girls. Fire drill was completed in two minutes.

Health.—One girl who had been in delicate health for some time died of syncope in March, 1906. Another girl, a tubercular case, died in hospital in December, 1906. One girl has suffered from acute rheumatism, but with this exception the health has been all that could be desired.

Conduct.—There has been very little difficulty in the management of the girls; they are tractable and anxious to please. The mark system with money awards continues to prove most helpful.

General remarks.—The examination was very satisfactory. In each department the teacher has a good grip of the girls. The schoolroom is making steady progress. Thanks are due to the lady who has kindly given her time to the teaching of basket making to a number of girls; outside help of this description is invaluable.

Dundee.

Visited.—17th April, 3rd May, 9th January and 17th October, 1907.

Inmates.—Total number in school, 113; voluntary cases, 0; on licence, 12; absconders, 1.

Staff.—Mrs. Mitchell, the matron, left 15th September, 1906, and was succeeded by Miss M. Davidson. Miss Cathro, left 30th April, 1906, and was succeeded as assistant teacher by Miss Esplin, May 7th, 1906. There have been two changes in the post of sewing teacher and a change in the post of house mistress.

Premises.—The playroom has been heated with hot pipes.

Standards with awards.—Standard VI, 16, good; Standard V, 15, good; Standard IV, 17, good; Standard III, 18, good;

Standard II, 15, good ; Standard I, 14, very fair ; Preparatory, 18, mostly new comers. The progress of Standard I is slow. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good. Geography, good. Mental arithmetic, good. The development of intelligence is good.

Industrial training.—There have been so many changes of staff in the industrial departments, that at present the work is scarcely systematised. New needlework is very fair, but repairing is much behind that of other schools of this class. A few girls can iron well, but care must be taken that all the elder girls get a fair share ; the clothes are nicely washed ; all the girls assist with this work. Cookery lessons are given by a visiting diplomatised teacher. Note books are kept but these are scarcely satisfactory, the information being somewhat incomplete. The prices of foods and the quantities required per person should be better known. The older girls should devote more time to industrial training, No pains should be spared to make good the want, inseparable from a building of this character, of an insight to the homelier sides of life and its many arts.

Physical training, &c.—The free gymnastics were not so good as usual. The girls appeared to be indifferent to their work, This is a pity as it used to be a fine feature in the school. A regular walk is taken on Wednesday afternoons.

Health.—There was a death in July from tubercular meningitis, and one girl was discharged suffering from tubercular disease. There have been ten other cases of tubercular disease in the school. In September there were two cases of scarlet fever. A case of conjunctivitis has been treated, and there was a case of sore eyes on the day of inspection.

Conduct.—A few girls have had to be corrected for disobedience and falsehood. Soon after the new superintendent's arrival four girls absconded. They were quickly brought back, and since then there has been no trouble. A mark system has been started in the schoolroom, and it would be well to extend it to every department.

General remarks.—Mrs. Mitchell left after 12 years' faithful service. The change was effected without injury to discipline. More attention is needed to the lower standards of the schoolroom. The teacher there has too much to do. The new superintendent is earnest and sensible, and with the cordial support of the managers should make this school even more successful than in the past.

Maryhill.

Visited.—1st March and 19th March, 1907.

Inmates.—Total number in school, 202 ; voluntary cases, 0 ; on licence, 21 ; absconders, 0.

Staff.—Superintendent, Mrs. Cameron. Miss A. F. Heriott (c) left 30th September, 1906, and was succeeded by Miss J. B. Stuart

(t. and c.) 1st October, 1906. There have been changes of nurse, laundress and dairymaid.

Premises.—No alterations have been made in the premises which are beautifully clean and in order throughout.

Standards with awards.—Standard VI, 2, good ; Standard V, 23, good ; Standard IV, 34, good ; Standard III, 39, good ; Standard II, 41, good ; Standard I, 21, good ; Preparatory, 42, good. The general award is good. Seventy girls are new since last inspection, and some of them are very backward. The lower classes are being well grounded.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitations were well rendered throughout. Mental arithmetic, good generally, very fair in III. Geography, good on the whole, hardly so good in V. Excellent object lessons have been given to the juniors, and hygiene and domestic economy to the seniors. Intelligence is well developed.

Industrial training.—Needlework is carefully done, stitches are correct and all work is kept clean. Cutting out requires more practice. Cookery lessons are given weekly by a visiting diplomatised teacher, the dishes cooked to-day were cleverly dealt with, quantities and prices of foods are known. Laundry work is exceptionally good ; all the older girls are able to wash and many can iron well. It is essential that the girls about to leave the school shortly should receive special attention ; a few of these are somewhat behind in their knowledge of industrial work. There is no difficulty in finding places for the girls. Great judgment is used in the selection of them, and in supervision of the girls after leaving.

Physical training, &c.—An admirable display of Swedish drill was given, under expert instruction. The occasional use of music for some of the movements is worth considering. A house is taken at Millport in the summer, and the girls go there in relays for a fortnight at a time. They are particularly well off as regards concerts and entertainments of all kinds ; and both the main building and the cottages are well provided with games and books.

Health.—A girl who was in a precarious state at the time of the last inspection died from phthisis in April. The only other ailments noted are two of pleurisy and one each of bronchitis, periostitis and erysipelas ; one or two have ear disease as the result of illness in early childhood. The general health has been remarkably good, and the girls are strikingly robust and well developed. This is due, in no small measure, to the excellent dietary. The medical care is thorough and includes the services of a dentist.

Conduct.—As usual, this has been excellent ; absconding never seems to be thought of here, and insubordination is unknown. Petty faults have to be corrected from time to time ; but this is achieved by means of the well-designed mark system, which carries much-valued privileges.

General remarks.—It is impossible to add much, if anything, to the commendation earned in the past by this fine school.

The handling of 200 girls, all from one centre, and that centre Glasgow, presents a problem of peculiar difficulty. The unfailing success of the school speaks more eloquently than words of the capacity of the management.

Glasgow R.C. Orphanage.

Visited.—28th February, 20th March, and 27th November, 1907.

Inmates.—Total number in school, 190; voluntary cases, 0; on licence, 9; absconders, 0.

Staff.—The school is in charge of Sister M. C. McClusky and eight other Sisters of the Order of St. Francis. There is no change in the staff.

Premises.—There has been no alteration in the premises, which were creditably clean throughout.

Standards with awards.—Standard VI, 14, good; Standard V, 24, good; Standard IV, 35, good; Standard III, 43, very fair; Standard II, 35, good; Standard 1, 24, and Preparatory, 14, at Bishopbriggs. The general award is good. Standard III contains some backward children.

Class subjects.—Singing, both notations, specially good. Composition, good. Mental arithmetic, good, except in III, where it was only fair. Recitations were particularly well rendered in some classes. Geography, good. Good object lessons have been given. Intelligence is well developed.

Industrial training.—There is an absence of system in the needlework arrangements, no set scheme is followed; the results of the examination are consequently somewhat disappointing. A great amount of work is got through each year, so that with an improved system more satisfactory results may be expected in future. Laundry work is fair, more rinsing is necessary to improve the colour of the clothes. Some of the older scholars iron well. Cookery lessons are given by a visiting diplomatised teacher—much headway has been made in this branch during the year—the lessons are on good lines and the recipe books are supplemented with useful hints on cookery. The dishes required to-day were well attempted.

Physical training, &c.—A good scheme of free gymnastics has been introduced; the benefit of the exercises will depend on the vigour with which they are performed. The children have been to the Home at Bishopbriggs in relays and have had several concerts and other entertainments.

Health.—The health has been unusually good. The only serious case was one of acute pneumonia in May. There have also been two of rheumatism, one of chicken pox, and a few of chilblains and eye troubles. The doctor examines all the girls every month.

Conduct.—While there are several girls here whose future careers will be watched with anxiety, the recorded offences are

not numerous. They include one of stealing money and one of pilfering, one of going home without leave and a few of insubordination. As a whole the girls respond readily to the kindliness and tact with which they are managed.

General remarks.—Another reasonably satisfactory year has been spent amid the squalid surroundings.

Dalbeth.

Visited.—18th June and 21st March, 1907.

Inmates.—Total number in school, 150; voluntary cases, 1; on licence, 8; absconders, 0.

Staff.—The school is in charge of the Sister Superior and 10 Sisters of the Order of the Good Shepherd. Miss Egan (c.) joined as third assistant teacher on 12th April, 1907.

Premises.—A new dormitory with 43 beds has been added to the school premises. New pigeon-holes have been put in the clothes room, and washstands in the dormitories.

Standards with awards.—Standard VI, 9, good; Standard V, 17, good; Standard IV, 18, good; Standard III, 30, good; Standard II, 23, good; Standard I, 24, good; Preparatory, 29, new-comers and infants. The general award is good. The work was very neatly done.

Class subjects.—Singing—sol-fa, good. Composition, in V and VI, good. Recitation, good throughout. Mental arithmetic, good. Geography, good. Object lessons on good lines are given to the juniors.

Industrial training.—Needlework is good. All girls are taught to sew, and all but the young ones mend their own clothes. Most of the senior girls make a good attempt at dressmaking, including cutting-out, fitting and machining. Some of the plain needlework is of the highest order. Laundry work is well done throughout, but care must be taken that *all* girls have a turn frequently in this department. Cookery lessons are given weekly by a visiting teacher. The girls have a good knowledge of the value of foods and of cooking generally.

Physical training, &c.—A good display of physical drill was given. The girls carry themselves well and put plenty of vigour into their exercises. They have a number of treats during the year, and are allowed to use the large grounds when weather permits.

Health.—A girl died in October from phthisis after a long illness, and two or three other girls have shown tubercular tendencies. There have been a case of bronchitis, two of pneumonia and a few of influenza in the spring, but the general health has been remarkably good. The doctor visits once a week, and a dentist every quarter, or as required.

Conduct.—Beyond a few schoolroom offences there is nothing to record. A good mark system with money rewards is in force.

General remarks.—The girls here are bright and happy and a credit to all concerned. The schoolroom work is particularly good.

Perth Craigie.

Visited.—30th April and 22nd February, 1907.

Inmates.—Total number in school, 59; voluntary cases, 2; on licence, 5; absconders, 0.

Staff.—Superintendent, Miss H. S. Kelman. Miss Robb (ex p.t.), teacher, left 8th January, 1907, and was succeeded by Miss E. Walker (ex p.t.), 16th January, 1907. The assistant matron left 31st December, 1906, and was followed by Miss H. Esslemont, 15th February, 1907. There is an additional assistant (one of the old girls) now in the kitchen. Otherwise the staff remains as before.

Premises.—There have been no structural alterations; the building is in good order and beautifully clean. New spring mattresses have been supplied to all the beds, and modern desks have taken the place of the old ones.

Standards with awards.—Standard V, 18, good; Standard IV, 10, good; Standard III, 8, very fair; Standard II, 9, good; Standard I, 6, good; Preparatory, 8, chiefly young children. The general award is good, though arithmetic in Standards III, II, and I is weak.

Class subjects.—Singing—sol-fa, good. Geography, good in all classes. Mental arithmetic, good in Standards II and IV and very fair in other Standards. Recitation, good throughout. Composition, in Standard V, good. Hygiene lessons have been given to Standard V. Intelligence is good.

Industrial training.—Needlework is good, ordinary white work quite above the average. All the older girls are learning the sewing machine and cutting-out. Dressmaking has been attempted, and it is hoped that the girls will soon do their own fitting. Cookery lessons have been carefully taught and useful notebooks kept. Quantities and prices of foods are well considered. Laundry work is done in an intelligent manner, the washing of the clothes is excellent. Elementary lessons on hygiene have been given to girls above Standard IV; these lessons would be more beneficial if notebooks were kept.

Physical training, &c.—Marching and good free exercises were performed in a spirited manner. The girls are taught the physiological value of the different movements; the gait is gradually improving. The regular walks are well enjoyed, and the usual month's outing to Broughty Ferry was highly appreciated.

Health.—A few simple ailments are recorded by the medical officer: one case of eczema (at present in infirmary), two whitlows, and two cases of abscess. One girl had her arm scalded. In July there were five cases of chicken-pox; all were mild cases but one, and this was a new scholar. With these few exceptions, the health has been highly satisfactory.

Conduct.—The girls give very little trouble, all the offences are trivial. A good mark system works well.

General remarks.—Considering there has been a change of schoolmistress during the year, the schoolroom results are very

satisfactory. In all departments, good, sound work is being done. The children are easy in manner, anxious to do their best, and look remarkably well.

Perth Girls.

Visited.—1st May and 21st February, 1907.

Inmates.—Total number in school, 61; voluntary cases, 4; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss I. S. Reid. The late matron's assistant left 17th November, 1906, and was followed by Miss F. Henderson, 29th November, 1906. The remainder of the staff remains as before.

Premises.—There have not been any structural alterations. The house is clean and in good order.

Standards with awards.—Standard VI, 9, good; Standard V, 11, very fair; Standard IV, 8, good; Standard III, 9, very fair; Standard II, 7, good; Standard I, 4, good; Preparatory, 13, including six infants, making good progress. The general award is good, but reading requires care.

Class subjects.—Singing—sol-fa, good, above the average. Composition, in Standards V and VI, good. Geography, in all classes, good. Recitation, good throughout. Mental arithmetic, good in Standards I, II, and VI, very fair in IV and V, and fair in Standard III. Useful lessons in hygiene to the upper, and object lessons to the lower standards, have been given. General intelligence greatly improved.

Industrial training.—Needlework is greatly improved; the work is of superior quality. All girls sew and knit, and even the young children fix simple garments. All except Grade I work the machine, and Grade III are becoming expert at cutting out. Most of the senior girls are managing dressmaking very well. Regular cookery lessons are given by the superintendent, who is a diplomatised teacher, the answers given being most intelligent. Laundry work is successfully taught. In this department special lessons on theory are about to be given, and notebooks will be kept. Generally, the industrial departments, especially the needlework room (which is a model of industry) have made great progress.

Physical training, &c.—Marching and free exercises were well done. The regular drill taken each morning has greatly improved the gait and appearance of the girls. Regular walks are taken once or twice weekly. The summer holiday to Glenfarg was not taken last year owing to the want of funds, but it is hoped that the outing may be continued this summer.

Health.—There are recorded one case each of inflamed eyes, swollen ankle, burnt foot, and eczema. In December there were four mild cases of chicken-pox. On the whole the children have enjoyed good health.

Conduct.—A few complaints of unpunctuality, laziness, dirty habits, and untruthfulness appear in the record of offences, but

very little trouble has been experienced in the management of the girls.

General remarks.—There is a general all-round improvement here. The girls are well in hand and are being kept well employed. The girls have greatly improved in appearance owing, no doubt, to the regular performance of drill each morning before schoolwork begins. A noticeable feature in the schoolroom is the satisfactory way in which the young children and new-comers are dealt with.

Greenock.

Visited.—25th April and 23rd March, 1907.

Inmates.—Total number in school, 40 ; voluntary cases, 0 ; on licence, 2 ; absconders, 0,

Staff.—Superindendent, Miss A. J. Stirling. Miss A. Brown (Art. 68) left 13th April, 1906, and was succeeded by Miss H. Pattison (Art. 68) 23rd April, 1906. There has been a change of laundress.

Premises.—The premises are admirably clean throughout. A new play shed has been erected and the outside offices enlarged. It would be well to pave the yard when funds permit. An excellent library has been presented to the school.

Standards with awards.—Standard VI, 3, good ; Standard V, 2, good ; Standard IV, 6, good ; Standard III, 6, very fair ; Standard II, 7, very fair ; Standard I, 5, good ; Preparatory, 7, making good progress. The general award is good. Work shows a great improvement in style and accuracy.

Class subjects.—Singing—sol-fa, fair. It might be possible to arrange for outside help in this subject. Composition, fairly good. Mental arithmetic, good in VI and IV, very fair generally. Geography, good. Recitation, good. Useful object lessons have been given, and the elements of grammar taught. Intelligence is being developed on good lines, and the girls are learning to answer brightly and readily.

Industrial training.—Needlework, good generally, stitches neat ; work clean. Cutting-out requires a little extra care. Girls help with dressmaking. Laundry work is done in a very satisfactory manner, the clothes are a beautiful colour, and nicely finished. The ironing of stiff linen done by the older girls is very good. Special cookery lessons are given weekly, and each girl, in her turn, takes the responsibility of cooking for the staff. Prices of foods are well known.

Physical training, &c.—Free exercises are taken by a visiting sergeant once a week for half the year. It is highly desirable that drill should be taken regularly all the year round, and preferably for a few minutes daily, for the girls speedily seem to relapse into a gait that is far from graceful. There is a prospect of a 10 days' holiday in Bute in July. Walks are taken frequently and the girls get their fair share of entertainments.

Health.—A girl died in March 1906 from tubercular meningitis. Among other ailments noted are one each of tumour, abscess,

conjunctivitis and eczema. A girl crushed her fingers in the mangle. The doctor visits weekly, but the teeth do not receive regular attention.

Conduct.—This appears to be satisfactory. Very few girls have given trouble of any kind.

General remarks.—Cordial thanks are due to an expert member of the committee, through whose untiring efforts the schoolroom has been placed on a sound basis.

Stirling.

Visited.—2nd May and 26th March, 1907.

Inmates.—Total number in school, 30; voluntary cases, 3; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss A. M. Mitchell. The staff remains the same.

Premises.—No alterations have been made. All parts of the house are clean.

Standards with awards.—Standard V, 5, good; Standard IV, 2, good; Standard III, 7, good; Standard II, 4, good; Standard I, 6, good; Preparatory, 6, good. The general award is good.

Class subjects.—Singing—sol-fa (elementary), good. Geography, good in lower standards; very fair in IV and V. Composition in Standard V, good. Mental arithmetic, good in Standards I, II, and V; very fair in III; and fair in IV. Recitation good in all standards.

Industrial training.—Needlework, though not very far advanced, is well done. Every girl sews and knits. Most of the older girls work the sewing-maching well, and have some idea of dressmaking; two girls attend special classes. Cutting-out should be on more practical lines. All the sewing is kept very clean. Special cookery lessons are taken by a number of the older girls at the continuation classes held in the adjacent Board school. Besides this, the girls receive a careful training in the kitchen by the superintendent. Quantities and prices of foods are known. The girls receive a homely training in laundry work. The clothes are creditably dealt with.

Physical training, &c.—Drill is taken in two sections; the older girls gave a creditable performance of wand exercises, and the younger ones did their free exercises in a careful fashion. The introduction of Swedish movements would be beneficial. Numerous outings, pic-nics and garden parties, and regular walks are enjoyed in the summer, and in the winter suitable entertainments are provided.

Health.—There have been two tubercular cases, one case of psoriasis, one case of somnambulism, and one girl had a wart removed from her hand. On the whole, the health has been satifactory. The doctor visits weekly, and oftener if necessary.

Conduct.—A little trouble has been occasioned by a transfer girl. A few cases of pilfering, idleness, and disobedience are recorded, but there has not been any serious trouble. A system of marks might, with advantage, be introduced.

General remarks.—This homely little school is doing its work in a quiet, conscientious way. The girls are inclined to be nervous and shy, and so scarcely do themselves justice. If the managers, when they visit, would make a point of speaking to the girls in class, and asking a few questions, it might, perhaps, be the means of bringing about more self-confidence.

Newton Stewart.

Visited.—28th May and 28th March, 1907.

Inmates.—Total number in school, 47; voluntary cases, 1; on licence, 10; absconders, 0.

Staff.—Superintendent, Miss J. Duff (c.). Miss Alice Barnes, schoolmistress, resigned 6th January, 1907, and was succeeded by Miss Kate Robb (Art. 79) 7th January, 1907.

Premises.—The ventilation of two storerooms has been improved. The kitchen is about to be re-tiled.

Standards with awards.—Standard V, 7, very fair; Standard IV, 13, very fair; Standard III, 8, very fair; Standard II, 10, fair; Preparatory, 9, fair. The general award is very fair.

Class subjects.—Singing—sol-fa, good. Composition, in V, above the average. Recitation, good throughout. Mental arithmetic, poor in III, fair elsewhere. Geography, fair in V, good in III, very fair elsewhere. History readers have been used. The development of intelligence is at present only moderate, but is likely soon to improve.

Industrial training.—Needlework is good generally, cutting-out and dressmaking have received great care. Several of the girls are experts with the scissors, and at the sewing-machine. It would be well, however, to allow each girl to complete, by hand, at least one garment during the year. Cookery lessons have been given weekly to the upper girls; the cookery on the day of the visit was well done, and answers on the value of foods were fairly well given. The girls do the washing for the home, the clothes are clean and nicely ironed.

Physical training, &c.—The girls are divided into seniors and juniors for physical training, and both sections gave good displays of free gymnastics and exercises with dumb-bells and bar-bells. The instruction is now given for two hours per week, and is thoroughly good.

Health.—Health has been remarkably good; there is only one medical entry for the year—a case of rheumatism. The girls look remarkably well.

Conduct.—The record of offences contain only five entries, none of them serious. The good manners of the girls do credit to the management.

General remarks.—The domestic care of the children is evidently very good. The new teacher has worked well, but there is still much leeway to make up, and the ultimate responsibility of the superintendent in this, as in all other departments, should be recognised.

APPENDIX No. II. (C).

TRUANT SCHOOLS.

North London.

Visited.—22nd July and 15th June, 1907.

Inmates.—Total number in school, 63; voluntary cases, 0; on licence, 272; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. C. E. Kirk. Mr. G. W. Nicholson (c.) left February 9th, 1907, and was succeeded by Mr. J. Graham (c.) on 1st March, 1907. Mr. J. D. Herbert (ex p. t.) left on 4th March, 1907, and was succeeded by Mr. G. H. Ashurst (ex p. t.) on the same day. There has also been a change of laundress and housemaid.

Premises.—The building has been painted on the outside, and papered and painted where required within. The scullery floor has been newly paved. One of the dormitories has been partitioned off as a sick room. It is advisable that the boys should have a change of suit for Sundays.

Standards with awards.—Standard VI, 2, good; Standard V, 1, good; Standard IV, 8, good; Standard III, 11, good; Standard II, 16, good; Standard I, 21, good; Preparatory, 4, good. The general award is good.

Class subjects.—Singing—sol-fa and elementary staff notation, good. Composition in IV, V, and VI, good. Recitation, very fair in III, good elsewhere. Mental arithmetic, very fair in III, good in other standards. Geography, good generally. Good object lessons have been given to I, II, and III. The development of intelligence is on good lines.

Industrial training.—For a short detention school there is some remarkably good work done in drawing. Manual instruction is going on steadily; the drawing of this department, also, is exceptionally good. Shoe-repairing is done, and the boys give assistance in the work of the garden.

Physical training, &c.—The dumb-bell exercises were good as far as they went, but exercises are needed for the lower part of the body. India-rubber shoes would be a great help to the gymnastic exercises.

Health.—One boy died from acute tuberculosis on the 27th May in the West Ham Infirmary. There were also two cases of pneumonia, both of which recovered after careful nursing, one of measles, one of rheumatism, a few of eczema, one of inflamed

gland, and one boy admitted suffering from hernia, to whom a truss was supplied. The general health has been extremely good. The boys are sent to a dentist when necessary, but their teeth are not regulaly inspected.

Conduct.—Two boys absconded in September, but were brought back the next day, and two others attempted to abscond. The remaining entries, though numerous, are all for offences of a trivial character.

General remarks.—The boys did credit to themselves and the staff on the day of inspection.

Fyfield.

Visited.—17th July, 6th September, and 10th January, 1907.

Inmates.—Total number in school, 38; voluntary cases, 0; on licence, 73; absconders, 0.

Staff.—Superintendent and matron, Mr. Ancel Culling (t. & c.) and Mrs. Culling. There has been no change in the staff.

Premises.—The premises were clean and in order. There have been no structural alterations.

Standards with awards.—Standard VI, 2, good; Standard V, 3, good; Standard IV, 6, good; Standard III, 6, good; Standard II, 7, good; Standard I, 10, good; Preparatory, 4, backward, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good in upper group, very fair otherwise. Mental arithmetic, good. Geography, in two groups, good. Useful object and general knowledge lessons have been given. Intelligence is well developed.

Industrial training.—Drawing is not quite up to previous years' standard, but with attention to finish this can soon be remedied. About half the boys are engaged on the land and about the stock; the work in the kitchen garden affords them good experience. Four boys are engaged in mending, on two days a week, under a visiting seamstress. The experiment of placing boys on farms in South Wales appears to have been successful, but it would be all to the good if they could be visited from time to time.

Physical training, &c.—The display of free gymnastics under the schoolmaster's direction was creditable, though of course below the class of a school like Highbury. Some provision is made for games, but recreation is confined mainly to occasional walks.

Health.—Eczema has been of fairly frequent occurrence during the year, and there have been some chilblains in the winter. In other respects the health has been good.

Conduct.—No serious offences have occurred. The record is made up mainly of bad habits formed before admission, impudence to an officer, and pilfering food.

General remarks.—The work of the school has gone on steadily during the year despite falling numbers. It is hoped that more use will now be made of the school, especially for boys dealt with under the Industrial Schools Act.

Quakers' Yard.

Visited.—10th and 2nd July and 1st October, 1907.

Inmates.—Total number in school, 74; voluntary cases, 0; on licence, 175; absconders, 0.

Staff.—Superintendent and head schoolmaster, Mr. W. J. Broome (t. & c.) Matron and schoolmistress Mrs. Broome (t. & c.) A bandmaster has been appointed. There have been changes in the posts of drillmaster and tailor.

Premises.—A new jacketted cooking boiler has been fixed in the kitchen. The building has been repainted throughout by the boys under the supervision of one of the officers. The Committee have purchased a piece of ground situated between the garden boundary wall and the Great Western Railway Station—area 4,050 square yards. It is proposed to use the larger portion of this as a recreation ground and the remainder will be brought under cultivation.

Standards with awards.—Standard V, 3, good; Standard IV, 9, good; Standard III, 6, good; Standard II, 28, good; Standard I, 19, good; Preparatory, 9, new-comers. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in V good. Recitation, good throughout. Mental arithmetic, good. Geography, good. Intelligence is very well developed. Two boys have recently passed an examination for a labour certificate.

Industrial training.—Drawing has received earnest attention, and in some respects is quite good. Much of the work in the books is above the average. Manual instruction is making great strides; corresponding progress for another year will place this department quite in the front rank. A kind friend has presented a lathe to the school which may be turned to good account. Clothes-mending, rug-making, and darning are other forms of useful industrial employment. The well-kept gardens also afford valuable training. The cardboard modelling is an excellent preliminary adjunct to the wood-working. A brass band of 18 performers was started in April 1907 as an experiment, and the boys are making good progress under the newly-appointed bandmaster.

Physical training, &c.—This continues to be as good as ever. Physical drill with wands and dumb-bells was very smartly performed under the direction of one of the older boys, and they acquitted themselves well in both free and applied gymnastics. The alert appearance of the boys is evidence of the benefit derived from this side of their training. Cricket and football are played in their seasons.

Health.—Two boys on admission were found to be suffering from scabies, and one boy was admitted with a broken arm. One boy who had broken his elbow from a fall in the yard is going on well, and another boy who was badly scalded by falling into a hot bath made a good recovery. The health throughout the year has been remarkably good, and the boys looked in good hard condition. A dentist visits every six weeks.

Conduct.—The chief entry is for dirty habits; there is otherwise nothing to record except two cases of pilfering and a few of disobedience and schoolroom offences. A mark system was introduced in February last and has proved very effective.

General remarks.—This excellent little school shows no falling off from the high standards noted in last year's report, and is a good example of a well-managed truant school.

Cardiff and Barry.

Visited.—11th and 1st July and 16th January, 1907.

Inmates.—Total number in school, 108; voluntary cases, 0; on licence, 122; absconders, 0.

Staff.—Superintendent, Mr. W. Davies (c.). Mr. Black, the schoolmaster, left January 11th, 1907, and Mr. Edwards was promoted to his place. Mr. Harry Edghill (ex p.t.) was appointed assistant teacher 1st May, 1907. There have been changes in the posts of cook, laundress, and housemaid.

Premises.—The floors in the dormitories have been stained and varnished. All parts were clean and in order.

Standards with awards.—Standard VI, 1, good; Standard V, 3, good; Standard IV, 11, very fair; Standard III, 22, very fair; Standard II, 27, very fair; Standard I, 32, very fair; Preparatory, 12, very fair. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition, V and VI, good. Recitation, good in VI and III, very fair elsewhere. Mental arithmetic, very fair in lower standards, good in the upper. Geography, very fair generally. Elementary science has been taken throughout. The development of intelligence is on good lines.

Industrial training.—Drawing is receiving steady attention. Extra importance might be attached to scale drawing. It is anticipated that manual instruction will now soon be commenced. Some of the boys gain experience in mending clothes and boots, and the majority get their turn in the garden.

Physical training, &c.—A good display of physical drill with bar-bells, clubs, and dumb-bells was given by the whole school, and a picked squad performed creditably on the horse and parallel bars, though somewhat hampered by their clothing. Belts and light shoes would improve the drill greatly. The small field is used for football and cricket when not taken up with the clothes line.

Health.—The health has been very good. Three boys have been treated for eczema and two for ulceration of the cornea. Another was admitted with ophthalmia and was sent to the Cardiff Infirmary for treatment when his time expired.

Conduct.—Boys have been punished for disobedience, dirty habits, pilfering, and insolence to officers. There is a mark system. It is incomplete in that it applies only to the schoolroom. Some of the methods prevailing are suggestive of the early days of truant schools.

General remarks.—The schoolroom for four months had only one teacher. An effort must now be made to bring it to a higher level. With fine buildings and surroundings and a sympathetic committee the school ought to leave a more favourable impression than is really the case.

Bristol.

Visited.—16th May, 1907.

Inmates.—Total number in school, 20; voluntary cases, 0; on licence, 73; absconders, 0. There is one other boy in the children's hospital.

Staff.—The schoolmaster, Mr. H. Edghill, commenced duty 1st June, 1906, and resigned 30th April, 1907.

Premises.—The premises were clean and in order.

Standards with awards.—Standard V, 1, good; Standard IV, 1, good; Standard III, 9, good; Standard II, 2, good; Standard I, 7, good. The work has been regular and painstaking. The general award is good.

Industrial training.—The drawing is regular, and the work is good. Three boys only remained in the tailors' shop, but they were working regularly and the tailor was still imparting useful knowledge beyond the ordinary work.

Health.—The health has been very good. A boy was in hospital on the day of inspection with tubercular glands. There have been a few cases of skin troubles, conjunctivitis, mumps, and one of weak heart.

Conduct.—The offences against the discipline of the school have been very few and of a trifling nature.

General remarks.—The school was closed in July, 1907.

Hightown, Liverpool.

(*Protestant Section.*)

Visited.—13th March and 10th January, 1907.

Inmates.—Total number in school, 32; voluntary cases, 0; on licence, 295; absconders, 0.

Staff.—Superintendent and matron, Mr. John Leitch (t. and c.) and Mrs. Leitch. The staff has been reduced by one visitor on each side.

Premises.—There has been no alteration in the buildings of either section. All parts were clean, and in good order.

Standards with awards.—Standard V, 1, good; Standard IV, 10, good; Standard III, 9, good; Standard II, 12, good. The general award is good. Work beautifully neat throughout.

Class subjects.—Singing—sol-fa, good. Special attention is given to voice production. Composition, specially good. Mental arithmetic, good. Geography, good. Good object lessons have been given; excellent courses of nature study and first aid. The intelligence is admirably developed.

Industrial training.—A good deal of attention is paid to drawing, in which the ordinary code work is supplemented by nature drawing and some amount of colour work. Plain gardening is the sole practical industry.

Physical training, &c.—Free exercises and marching are taken daily, and are fairly good, especially in the Protestant section, though not up to the level of previous years. Football and cricket are played in their seasons.

Health.—The general health appears to have been very good. Boys are carefully examined on admission and discharge, and also every quarter. The most serious case was one of pleuro-pneumonia, which was treated at a hospital. Another, somewhat out of the common, was one of a form of epilepsy, which was treated by trephining. Various minor ailments, including some chilblains, and one or two accidents have received treatment during the year. The appointment of a dentist is still under consideration; but toothbrushes have been supplied.

Conduct.—Untruthfulness and disobedience are the principal faults. On the Roman Catholic side four boys absconded at different times. The general conduct has been satisfactory.

General remarks.—This is the only truant school in which the teaching is in the hands of women, and the schoolroom work will challenge comparison with that of any other school of the kind. In the matter of industrial training, however, it must be admitted that Hightown still lags behind.

(*Roman Catholic Section.*)

Visited.—13th March and 16th January, 1907.

Inmates.—Total number in school, 53; voluntary cases, 0; on licence, 294; absconders, 0.

Staff.—Superintendent and matron, Mr. T. B. George (t. and c.) and Mrs. George (t. and c.).

Premises.—See Protestant Section.

Standards with awards.—Standard V, 5, good; Standard IV, 11, good; Standard III, 11, good; Standard II, 9, good; Standard I, 13; Preparatory, 4. The general award is good. The neatness and accuracy of the work is most creditable.

Class subjects.—Singing—sol-fa, good. Composition, good. Mental arithmetic, good throughout. Recitation, good. Geography, good. Good object lessons have been given. Intelligence is particularly well developed.

Industrial training.—A plucky attempt at drawing is made under the difficult circumstance of one teacher to five classes, all more or less in need of special attention. Plain gardening is the only industry.

Physical training, &c.—See Protestant Section.

Health.—See Protestant Section.

Conduct.—See Protestant Section.

General remarks.—See Protestant Section.

Upton House, London, E.

Visited.—24th and 25th June and 22nd August, 1907.

Inmates.—Total number in school, 127; voluntary cases, 0; on licence, 120; absconders, 0.

Staff.—Superintendent, Mr. A. J. Walker. A visiting manual instructor has been appointed. The post of assistant laundress is at present vacant.

Premises.—A manual instruction room was opened last November. A new boiler has been provided. The premises were clean and in good order.

Standards with awards.—Standard VI, 6, good; Standard V, 10, good; Standard IV, 20, good; Standard III, 22, good; Standard II, 26, good; Standard I, 29, good; Preparatory, 13, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, very fair in VI, good in V. Recitation, very fair in II, good elsewhere. Mental arithmetic, fair in III, very fair in II, IV, and V, good in I and VI. Geography, good in the junior standards, very fair in the upper. History lessons have been given to the upper standards, and object lessons to the juniors. The development of intelligence is receiving attention throughout.

Industrial training.—Drawing has received steady attention with correspondingly good results. An encouraging commencement has been made in manual instruction. Technical instruction of above average quality is being given in the tailoring and shoemaking shops; the ready response of the boys is particularly noticeable. Two boys are engaged in the bakehouse; and, as a reward, some of the boys get a turn in the garden.

Physical training, &c.—The whole school gave displays of military and gymnastic marching, and free gymnastics. These exercises were generally well done. A special squad did some work over the horse and on the parallel and horizontal bars. Swimming (including life-saving) receives more than ordinary attention, and the boys not only gain certificates of efficiency, but are very successful in competition with other schools. A number of the boys have been treated to outings by kind friends.

Health.—Health has been good. The most serious entries in the medical register have been one of herpes, three of eczema, two of abscess, two of conjunctivitis, one each of influenza and congestion of the lungs, and one of hæmoptysis. The appearance of the boys gives clear evidence of first-rate domestic care on the part of the matron.

Conduct.—The list of offences is not serious. Two cases of pilfering, three of lying, three of smoking, two of fighting, and one of improper language are recorded. The remainder of the entries refer to ordinary school-boy offences.

General remarks.—Not only has a good steady year's work in all departments to be recorded, but the school gives the impression of genuine development, particularly in the industrial shops. The good attendance of ex-scholars at the ordinary day schools, the large number of old boys who visit the school, and the addition of names, for some special merit, to the honours board, all indicate the right sort of success.

Highbury, London, N.

Visited.—21st and 18th June and 18th January, 1907.

Inmates.—Total number in school, 164; voluntary cases, 0; on licence, 143; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. G. T. Peall. Mr. Howes (t. and c.) left 25th September, 1906, and was succeeded by Mr. H. Selley (t. and c.), who joined 1st September, 1906. Mr. J. E. Thomas (t. and c.) left 25th August, 1906, and was succeeded by Mr. J. W. Joyce (t. and c.), who commenced on 30th October, 1906. There has also been a change of cook and housemaid.

Premises.—Fire-alarm bells and fire hydrants have been fixed in various parts of the building.

Standards with awards.—Standard VI, 5, good; Standard V, 8, good; Standard IV, 19, good; Standard III, 33, good; Standard II, 37, good; Standard I, 42, good; Preparatory, 20, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V, and VI, fairly good. Recitation, good. Mental arithmetic, good. Geography, good. History readers have been well used and some useful object lessons have been given.

Industrial training.—Drawing is excellently done all through, and the school must be equally complimented upon its manual instruction. The boys showed ready response in the technical instruction of each of the trade departments (tailoring, shoemaking and baking), excellent evidence of the quality of the teaching. Drawing might be combined with the shoemaking instruction. Situations have been found for 30 boys on leaving the school this year.

Physical training, &c.—The physical training maintains its high reputation both as regards free and applied gymnastics. At swimming 80 boys were awarded first-class certificates and 70

others were able to swim. The school belongs to the Islington and District School Athletic Association. Fourteen football matches have been played, twelve of which have been won, and the school is winner of the Junior Championship. At the Home Office school sports three first and three second prizes were carried off.

Health.—The health has been very good. There was a slight case of broncho-pneumonia,besides two of acute rheumatism and two of conjunctivitis. A sporadic caseof chicken-pox occurred in November. A dentist visits once a week.

Conduct.—There have been three cases of absconding in the 12 months. Boys have been corrected for neglect of work, disobedience, and misconduct, but the offences appear to be trivial. The discipline is maintained chiefly by privileges attaching to good conduct, and very satisfactory reports are received of the behaviour of the boys on licence.

General remarks.—The numbers continue low, but the school is carried on with the same exactness and untiring energy as before. A boy obtained the Royal Humane Society's Certificate for life saving shortly after leaving the school.

Holme Court, Isleworth.

Visited.—28th June and 7th June, 1907.

Inmates.—Total number in school, 67; voluntary cases, 0; on licence, 90; absconders, 2.

Staff.—Superintendent and matron, Mr. and Mrs. A. H. Clayton. The assistant schoolmaster, Mr. McCormick, left 1st April, 1907, and was succeeded by Mr. G. Nodeling (c.), 3rd April, 1907. The laundress has been off duty since 14th May.

Premises.—The electric-bell communication between the superintendent's bedroom and the dormitories has been re-established. A room has been fitted up with pigeon-holes for the boys' clothing. The ventilation of the dormitories has been improved. The rooms have been brightened with pictures. Knickerbocker suits are now worn, and lighter boots. The premises were beautifully clean.

Standards with awards.—Standard VI, 1, very fair; Standard V, 8, good; Standard IV, 17, good; Standard III, 11, very fair; Standard II, 15, good; Standard I, 14, good. The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V and VI very fair. Recitation, good. Mental arithmetic, fair in III, very fair in IV, good elsewhere. Geography, good. The development of intelligence is good.

Industrial training.—Drawing has received steady attention, but is a little rough. This can readily be rectified. In woodworking especially, careful attention should be given to those elementary details which continually recur in more advanced work, and upon which the success of that work so largely

depends. Some of the boys gain experience in the garden by assisting the gardener in his general work.

Physical training, &c.—The physical training consists of free gymnastics and exercises over the horse. The former were well designed and carried out with considerable spirit. Several boys took the horse neatly, and the display was remarkable for the large proportion of boys competing. The yard is confined for games, but the best is made of it for football and cricket.

Health.—A boy was discharged in January who suffered from fits. In July, 1906, two cases of diphtheria occurred. Both made satisfactory recoveries, and were the only serious cases for the twelvemonth. Rheumatism, eczema, abscess, two cases of conjunctivitis, and a fractured arm have been treated in the school.

Conduct.—Two boys who absconded are still at large. Two other boys ran away (one of them twice), but were both brought back within 24 hours. Otherwise the boys appear to give little trouble ; the only other cases recorded being one of bad language and one of stealing the matron's keys. A mark system has been started and rewards given by the generosity of friends.

General remarks.—The boys here seem to be treated with much consideration, yet the recidivists do not increase in number. At the same time the influence for good is likely to be more lasting than purely repressive measures. The scheme for enlisting the co-operation of parents is earnestly recommended to the Committee.

Midland (Lichfield).

Visited.—28th February and 29th January, 1907.

Inmates.—Total number in school, 82 ; voluntary cases, 0 ; on licence, 96 ; absconders, 0.

Staff.—Superintendent and matron, Mr. A. H. Hollingdale (t. & c.) and Mrs. Hollingdale (t. & c.). Mr. O'Sullivan was appointed assistant teacher 4th February, 1906.

Premises.—Two new boilers for the bath and school respectively have been put in. The school has been partially redecorated by the boys.

Standards with awards.—Standard V, 2, good ; Standard IV, 9, good ; Standard III, 16, good ; Standard II, 24, good ; Standard I, 18, good ; Preparatory, 9, good. The general award is good

Class subjects.—Singing—sol-fa, good. Recitation, good. Composition, good. Mental arithmetic, good. Geography, good. Object lessons, good. The development of intelligence is good.

Industrial training.—Drawing is taken up to Standard IV work. The quality of the work is not surpassed in any school. Technical instruction in the tailoring shop is receiving careful attention. The drawing here, too, is extremely good. About half-a-dozen boys assist in the cultivation of the two acres of

kitchen garden. Possibly, by some re-arrangement, this number might be increased. The drum and bugle band is a good feature of the school. An attempt is now being made to find situations for the boys on leaving.

Physical training, &c.—The free gymnastics, gymnastic marching and exercises over the horse are of first rate quality. In summer base-ball is played, and in winter football; at the latter 18 matches have been played.

Health.—The general health has been good save for a few cases of boils, otitis, eczema, and ringworm. In September three cases of diphtheritic sore throat occurred. These had to be isolated for a considerable time, and the infection did not spread. A lad fractured his leg at play, but it mended well. There have also been a few other accidents. Tooth brushes have been introduced and also night-shirts.

Conduct.—There has been a case of absconding, an attempt to abscond, and one of inciting to abscond. The chief trouble has been with dirty conduct and damaging property. Rewards are given to those holding responsible positions and excelling in work.

General remarks.—The boys were exceedingly bright at their work, smart at their drill, and pleasant in manner. The recidivists have steadily declined in number.

Hull.

Visited.—26th July, 4th October, and 21st September, 1907.

Inmates.—Total number in school, 50; voluntary cases, 0; on licence, 201; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. John Langdale. Mr. W. J. Barsley (ex p.t.) is leaving shortly.

Premises.—The surroundings of the school are against anything in the nature of smartness, but the interior of the structure has been brightened by a liberal use of green paint.

Standards with awards.—Standard IV, 16, good; Standard III, 11, good; Standard II, 9, good; Standard I, 7, good; Preparatory, 6, making progress. The general award is good. Reading and writing are good throughout, but arithmetic shows evidence of not having been properly taught before admission.

Class subjects.—Singing—sol-fa, good. Recitation, very fair. Mental arithmetic, good. Geography, good in IV, II, and I, very fair in III. History readers are in use. Good object lessons have been given. Intelligence is developed on good lines.

Industrial training.—Scale drawing requires special attention; otherwise drawing is fairly well taught. Some good extra work has been done by selected boys. The senior boys attend a neighbouring centre for manual instruction, and are gaining a useful experience. It may be possible to arrange for more frequent attendance in future, so that the boys may qualify for grant.

Physical training, &c.—A good display of free exercises and dumb-bell drill was given. This is taken daily. Time is allowed for recreation, but there is no provision for organised games.

Health.—The teeth do not receive special attention, but the medical officer visits regularly. Health has been good, a case or two of skin disease and one of swollen glands being all the ailments recorded. A boy is in bed with a scalded foot.

Conduct.—Pilfering, untruthfulness, and dishonesty in the schoolroom are the most frequent faults. Four boys absconded during the year; three of these were new boys. The fourth, who had been readmitted several times and was trusted, ran away while on an errand.

General remarks.—The situation is not suitable for a residential school. There appears to be no definite system for keeping in touch with the boys after leaving, and the methods generally seem to be somewhat out of date.

Sheffield.

Visited.—10th and 11th October and 20th December, 1907.

Inmates.—Total number in school, 80; voluntary cases, 0; on licence, 227; absconders, 0.

Staff.—Superintendent and matron, Mr. and Mrs. J. McHardy. Mr. E. A. Pearson (c.), the assistant schoolmaster, left 31st December, 1906, and was succeeded by Mr. Alfred Parratt (ex p.t.) 1st January, 1907. There have been changes in the posts of gardener and stableman.

Premises.—There have been no changes in the building. Fire extinguishers have been bought, but a drill should be organised without delay for clearing the dormitories.

Standards with awards.—Standard V, 2, good; Standard IV, 11, good; Standard III, 23, good; Standard II, 29, good; Standard I, 9, good; Preparatory, 6, good. The general award is good.

Class subjects.—Singing—sol-fa. Composition, in IV and V, good. Recitation, good. Mental arithmetic, very fair in III, good in other standards. Geography, good. History readers have been in use. Good object lessons have been given throughout, The development of intelligence is good.

Industrial training.—Drawing is receiving steady attention; a little more precision in the mechanical work would be an advantage. The manual instruction drawing is particularly good, while the practical bench-work deserves commendation. Gardening is of course the staple industry, in which about 80 boys are constantly employed. The superintendent gives lessons in the theory of horticulture during the winter, and these are to be systematised.

Physical training, &c.—The free gymnastics have been arranged so as to develop all the muscles of the body. The

exercises were well executed, though the sloping and uneven surface, and thick boots prevent very smart work. Football, cricket, and swimming are all practised.

Health.—The general health has been good. The ailments recorded are chiefly due to the cold situation, *e.g.*, chilblains and a case of syncope. One lad was for a long while ill with jaundice, but eventually made a good recovery. Single cases of shingles, tonsilitis, and ringworm are also mentioned. The doctor visits twice a week. It would be as well to train the boys to take care of their teeth and use brushes.

Conduct.—The conduct has been good, but there has been more absconding than usual. This has been chiefly amongst new boys. Bullying, pilfering, disobedience, and other small offences have also had to be checked.

General remarks.—The school did well on the day of inspection. There is a manly tone pervading the whole place, which reflects credit on all concerned with the management.

Glasgow.

Visited.—17th April and 18th May, 1907.

Inmates.—Total number in school, 129; voluntary cases, 0; on licence, 230; absconders, 1.

Staff.—Superintendent and matron, Mr. J. B. Thomson (c.) and Mrs. Thomson (c.). Mr. J. J. Murray (Art. 68) was appointed additional teacher 17th July, 1906. An additional domestic has been appointed.

Premises.—Though some parts need recolouring, the premises as a whole are clean and in order. The play field is being levelled, two new emergency staircases have been erected, and the schoolroom can now be divided by means of a movable partition.

Standards with awards.—Standard V, 7, very fair; Standard IV, 16, very fair; Standard III, 19, very fair; Standard II, 32, good; Standard I, 30, good; Preparatory, 24, making progress. The general award is very fair.

Class subjects.—Singing—sol-fa, very fair. Composition in V, fair. Mental arithmetic, very fair. Recitation, very fair. Geography, good in V and II, very fair otherwise. Some object lessons have been given. Intelligence is very fair.

Industrial training.—Decision and finish, which can readily be secured, would well repay in the drawing. 72 boys—a large proportion of the whole school—take manual instruction. In this subject greater attention to accuracy in elementary items will speedily produce correspondingly good results. The tailoring and shoemaking shops are both very practical departments, and a good effort is being made in giving technical instruction, to which the boys heartily respond. About a dozen boys work in the well-kept kitchen garden and the greenhouse.

Physical training, &c.—The physical training is on quite ideal lines for a school of the kind. The head schoolmaster

deserves great credit for the form displayed in both free and applied gymnastics. Swimming is taught to all, and cricket and football receive due encouragement.

Health.—A boy died in hospital of cerebro-spinal meningitis in October 1906. Cases are recorded of influenza, erisypelas, cellulitis, and periostitis. Most of these are constitutional. There have been a few abcesses and eye troubles. The doctor visits regularly, and the medical attention is careful, though the boys have not the services of a dentist.

Conduct.—There have been several attempts to abscond, and one boy is still at large. The remaining entries relate to petty offences, but these are not numerous, and the discipline may be regarded as perfectly satisfactory.

General remarks.—The school promises well except in the schoolroom. As the superintendent does not seem to have time for effective supervision, a trained and certificated teacher is necessary to meet the special demands of a truant school.

APPENDIX No. II. (D).

DAY INDUSTRIAL SCHOOLS.

Bristol.

Visited.—17th May, 13th and 18th April, 14th January, and 10th December, 1907.

Inmates.—*Boys*—Total number in school, 78; voluntary cases, 4; on licence, 0; absconders, 0.

Girls.—Total number in school, 62; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss B. Ganson (t. and c.). There has been a change in the post of attendance officer.

Premises.—The workshop has been enlarged and is to serve as a centre for other schools.

Standards with awards.—*Boys*—Standard VI, 2, good; Standard V, 4, good; Standard IV, 18, good; Standard III, 16 good; Standard II, 21, good; Standard I, 12, good; Preparatory, 5, good.

Girls.—Standard V, 2, good; Standard IV, 10, good; Standard III, 17, good; Standard II, 11, good; Standard I, 16, good; Preparatory, 6, good.

The general award is good.

Class subjects.—Singing—sol-fa. Composition, good. Recitation, good. Geography, good. Mental arithmetic, very fair. Good object lessons had been given throughout. The development of intelligence is good.

Industrial training.—*Boys*—Drawing generally shows that the subject has received steady attention; while individual children do very good work indeed. In manual instruction

better finish is required in both the drawing and the benchwork, and the ability to read a drawing should be carefully cultivated.

Girls.—Needlework has received care, but too much specimen work should be avoided and the uses of the different stitches should be understood. In the upper standards buttonholing requires care. Specific laundry work is taught by a visiting teacher. The girls should have a better knowledge of how to remove stains from linen, &c., but on the whole the answers were good. Cookery lessons are also given weekly by a diplomatised teacher. Prices of food and quantities required per person should be better known.

Physical training, &c.—This has improved of late. The boys and girls each have a suitable course. Shoes have recently been supplied to the boys, and this will improve the marching exercises. Both boys and girls swim regularly.

Health.—The general health has been good. There was a serious case of appendicitis, and a lad appeared for some time to be suffering from diabetes, but is now well. There are several children who have had weakness of the heart and anæmia. Two or three have been operated on for adenoids. With the exception of a few skin troubles, there is not much further to record.

Conduct.—A few boys have been punished for truanting, disobedience, and bad behaviour in the schoolroom. There is a mark book kept for drill; it would be well if this system could be extended to all departments.

General remarks.—Forty-eight children have been admitted since 1st January. The sudden increase in numbers, together with the regretted ill-health of the superintendent—who has been constantly absent—has thrown a considerable strain on the teachers, who are to be congratulated on the creditable nature of the results.

South Corporation, Liverpool.

Visited.—7th November, 25th February, and 21st October, 1907.

Inmates.—*Boys*—Total number in school, 118*; voluntary cases, 18; on licence, 1; absconders, 0.

Girls.—Total number in school, 78; voluntary cases, 5; on licence, 0; absconders, 0.

Staff.—The superintendent, Miss Catherine Knight (t. & c.), died on 14th January, 1907. Miss Elizabeth Purcell (t. & c.) was appointed superintendent on 21st June, 1907, Miss Kelly (t. & c.), deputy-superintendent, being in charge in the interim. There has also been a change of visitor and industrial mistress.

Premises.—There has been no change in the buildings. The new school in Northumberland Street will shortly be finished.

Standards with awards.—*Boys.*—Standard VI, 6, good; Standard V, 3, good; Standard IV, 13, good; Standard III, 26,

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* Including one boy on licence from Hightown.

good; Standard II, 21, good; Standard I, 32, good; Preparatory, 11, good.

Girls.—Standard V, 6, good; Standard IV, 10, good; Standard III, 15, good; Standard II, 15, good; Standard I, 21, good; Preparatory, 6, good. The general award is good.

Class subjects.—Singing—sol-fa, good; seniors above the average. Composition, good. Recitation, good. Mental arithmetic, very fair in III, good generally. Geography, very fair in I, good in other standards. Object lessons have been given to Standard II, and all below. The development of intelligence is good.

Industrial training.—*Boys.*—The staff must be heartily complimented on the quality of the drawing. Manual instruction is receiving steady and careful attention. It would be well for boys who once commence this work to continue it to the end of their school life, and for the best boys to attend double time and be carried forward to really advanced work. Tailoring has progressed favourably.

Girls.—The needlework was very fair, but nothing except elementary work has as yet been attempted. The older girls have taken a course of special cookery lessons. The girls assist in washing the towels, tablecloths, &c., belonging to the school.

Physical training, &c.—The physical training is full of dash and vigour. A few of the exercises, particularly those for the trunk, should be slower, but the general work was very good. No certificates for swimming have been tried for this year.

Health.—The arrangements with regard to medical attendance and care of the teeth are given in the Kirkdale report. There has been nothing abnormal in the state of health. Enlarged glands, sore eyes and skin troubles have been treated, and some severe cases—pneumonia (4), and consumption (2)—sent to the hospital. The staff gives valuable assistance in the simpler dressings, and in bringing sick children to the notice of the doctor.

Conduct.—Four children (one girl, three boys) have been sent to reformatories during the year, and 12 to industrial schools. Three boys have been punished for smoking, a few for sleeping out and begging in the streets, and the remaining entries, which are not numerous, are for truanting and unpunctuality.

General remarks.—The school suffered a great less in the death of Miss Knight, the superintendent. For many years she had inspired her fellow-workers with enthusiam and zeal, which still animate the teachers and children of this school.

Kirkdale, Liverpool.

Visited.—30th October, 8th and 9th February, 25th January and 25th October, 1907.

Inmates.—*Boys*—Total number in school, 121; voluntary cases, 13; on licence, 5; absconders, 0.

Girls.—Total number in school, 93; voluntary cases, 7; on licence, 10; absconders, 0.

Staff.—Superintendent, Mr. W. Gorrie (c.). The deputy-superintendent, Miss E. Purcell, left 20th June, 1907, and was succeeded 1st August by Miss E. Reardon (t. and c.).

Premises.—Soon after the inspection in October the children were transferred to a new school in Walton Road, specially built for the purpose.

Standards with awards.—*Boys*—Standard VI, 1, good; Standard V, 4, good; Standard IV, 10, good; Standard III, 32, good; Standard II, 34, good; Standard I, 47, good; Preparatory, 7.
Girls.—Standard VI, 1, good; Standard V, 4, good; Standard IV, 9, good; Standard III, 17, good; Standard II, 20, good; Standard I, 29, good; Preparatory, 8.
The lower portion of I and Preparatory class should be taught on kindergarten lines. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Mental arithmetic, good. Recitation, good. Geography good. Good object lessons have been given in III and all below. History readers had been intelligently used. The development of intelligence is good.

Industrial training.—*Boys*—In drawing, a little extra attention might be given to Standard III work, otherwise the examination work of this school was very good indeed, and in the fifth standard really first class. Manual instruction would seem to be handicapped by the condition under which it is being carried on, as these probably account for neither the bench-work nor the drawing being up to a good standard. It will be a matter for satisfaction when this subject can be carried on in the school itself, and in accordance with a less restricted syllabus. The remarks on tailoring at Bond street apply equally to this school.
Girls.—As regards the girls, needlework has very much improved, and a satisfactory scheme has been followed. It would be as well for the older girls to learn the use of the sewing machine. Cookery is taken once a week by a visiting teacher. The 12 girls who are taking the lessons gave some very intelligent answers. Laundry work may be expected to improve in the new building. Advantage has been taken of two homes for training girls for service.

Physical training, &c.—The teachers take the drill—free gymnastics and dumb-bell exercises. The former want exactness, should not be worked so fast, and are better without music. A visit from an expert instructor would put the work on better lines, and possibly lead to the introduction of applied gymnastics. Since May, 16 certificates have been won for swimming, and still better results may be expected at the new school. The school went into camp near West Kirby for a fortnight.

Health.—The medical attention here, as in all the Liverpool day industrial schools, is very painstaking. A weekly visit is made by the doctor, all new admissions examined, and any sick brought to his notice. The height, chest measurement, weight, &c. are carefully kept. This school has the advantage of a weekly visit from a trained nurse. Two children and a teacher contracted typhus and were satisfactorily treated in hospital. A child was burnt to death in her home. Many childish disorders have received

attention. A dentist has been appointed to all the day industrial schools.

Conduct.—There is nothing to record here beyond truanting and late coming, with a few cases of misbehaviour and impudence and two of smoking.

General remarks.—Soon after the inspection in October the children were transferred to a new school in Walton Road. A fine spirit has always animated the staff, and, despite great difficulties, excellent work has been done by them. The new school will afford greater scope for their energies and better opportunities for developing the industrisl and physical training of the children.

Bond Street, Liverpool.

Visited.—31st October, 1st November, 7th February, and 23rd October, 1907.

Inmates.—*Boys*—Total number in school, 153; voluntary cases, 17*; on licence, 14; absconders, 0.

Girls—Total number in school, 111; voluntary cases, 7; on licence, 10; absconders, 0.

Staff.—Superintendent, Miss A. Willie. Miss E. Reardon (t. & c.) left 31st July, 1907; Miss E. Gidlow, on 30 April, 1907; Miss E. Cormack, 31st July, 1907; Miss A. Bradshaw (c.), 31st December, 1906; Miss K. Stephens, 31st December, 1906. They were succeeded by Mr. John A. Tarver (t. & c.) (Deputy Superintendent), 1st August, 1907; Mrs. S. Lacey (t. & c.), 1st January, 1907; Mrs. A. Hulme (t. & c.), 1st August, 1907; Miss M. Grundy (c.), 1st February, 1907; and Miss A. Towers (ex p. t.), 1st August, 1907. Mr. Flynn, the visitor, died, and Mr. A. S. Grant succeeded him, 1st September, 1906.

Premises.—A hut was erected in the yard for the girls' clothes, and a large hot-water tank has been put in the basement. An improvement has been made in the boys' outside offices. Painting has also been done. The laundry is cramped and inconvenient.

Standards with awards.—*Boys*—Standard VI, 2, good; Standard V, 6, good; Standard IV, 28, very fair; Standard III, 33, good; Standard II, 39, very fair; Standard I, 26, good; Preparatory, 19, good.

Girls—Standard VI, 1, good; Standard V, 9, good; Standard IV, 11, very fair; Standard III, 27, good; Standard II, 24, very fair; Standard I, 21, good; Preparatory, 18, good.

The general award is good. Pains have been taken to move children forward.

Class subjects.—Singing—sol-fa, good. Composition, in VI, V, and IV, good. Recitation, good in III and I, very fair in other standards. Mental arithmetic, good in I, very fair in other standards. Geography, good in the lower, very fair in the upper

* Including one on licence from Kirkdale and one on licence from Hightown.

standards. Good object lessons had been given to the lower standards, and some paper folding and brush work taken by I and preparatory. The development of intelligence is on good lines.

Industrial training.—*Boys.*—Drawing shows steady attention. The teachers need have no hesitation about developing the more advanced work. The practical work of manual instruction is not quite up to expectation. The drawing for this work, too, might show greater clearness and finish. Tailoring has made quite remarkable advance. The boys now not only mend, but make; and theoretical instruction is receiving due attention.

Girls.—Needlework is very fair; all girls are taught sewing and knitting; a little cutting out of simple garments has been commenced, but all the work so far is very elementary. It would be a help towards the girls' future if they could have some little instruction in working the sewing machine. There are no special lessons given in laundry work, but that which is attempted is intelligently done. Special cookery lessons are given weekly by a visiting teacher; the answers were only fairly intelligent. Simple lessons in domestic hygiene and the care of the baby are about to be introduced.

Physical training, &c.—There is a well-organised system of drill, which includes all the school. The barbell, and balance exercises and the elder girls' drill are good, but there still remains much to be done to get the full value from the course. The instructor and the deputy superintendent are taking evening classes over the horse and on the parallel bars. Fifty-three certificates for swimming have been taken, but the school has been excluded from competition with other schools. The caretaker has a smart class for life-saving drill. The usual holiday was spent in camp at West Kirby.

Health.—The children have the same advantage of medical supervision as at the Kirkdale School. There have been some serious cases. Six deaths (3 boys and 3 girls), two from street accidents and the remainder from meningitis, consumption, pneumonia and chorea respectively. Two mentally defective have been sent to a special school. Special treatment has been tried in order to reduce the number of swollen glands. There has been an epidemic of ophthalmia, and some sore eyes were still to be seen on the day of inspection.

Conduct.—Five boys have been sent to reformatories, having got into the hands of the police. There has been a normal amount of truancy, sleeping out, smoking, and the usual school offences.

General remarks.—Constant changes in the staff have adversely affected the schoolroom work. The deputy superintendent is now specially entrusted with the disposal and after supervision of the children, and valuable results may be expected.

Queensland Street, Liverpool.

Visited.—5th November, 25th February, and 23rd October, 1907.

Inmates.—*Boys.*—Total number in school, 101; voluntary cases, 16; on licence, 8.

Girls.—Total number in school, 85; voluntary cases, 20; on licence, 12.

Staff.—Superintendent, Miss E. Cregg (t. and c.). Miss M. Flett (c.) left 28th February, 1907. Miss E. Archer (c.) was appointed 1st April, and left 31st May. Miss E. Gidlow (c.) succeeded her on 1st May, 1907. The industrial mistress, Miss E. Fisher, left 31st December, 1906, and was succeeded by Mrs. E. Crozier 1st January, 1907.

Premises.—There has been no change in the buildings. The facilities for bathing are hampered by the difficulty of heating the bath. Fire extinguishers have been supplied and the ability of teachers to clear their class-rooms quickly has been tested from time to time.

Standards with awards.—*Boys.*—Standard VI, 4, good; Standard V, 4, good; Standard IV, 17, good; Standard III, 19, good; Standard II, 20, good; Standard I, 25, good; Preparatory, 12, good.

Girls.—Standard V, 1, good; Standard IV, 11, good; Standard III, 21, good; Standard II, 20, good; Standard I, 16, good; Preparatory, 15, good.

The general award is good.

Class subjects.—Singing—sol-fa, good (above the average). Composition, good (above the average). Recitation, good. Mental arithmetic, good. Geography, good. Good object lessons have been given to III and below. II and III take brushwork, and boys in Standard I free-arm drawing and girls flower making. The development of intelligence is good.

Industrial training.—*Boys.*—The staff must be complimented on the good work done in drawing. Manual instruction shows improvement. Boys who once commence the subject might well continue it till the end of their school life. Tailoring has progressed from mending to making, and technical instruction is likely soon to become a real factor in this work. Twelve boys receive cookery lessons from a visiting teacher.

Girls.—Needlework on the whole is good. Cutting out and machining are to receive more practice in future. Special cookery lessons are given weekly by a diplomatised teacher. Laundry work is well done, the ironing was very creditable and the clothes were beautifully washed.

Physical training, &c.—The whole school is arranged in classes for free gymnastics, dumb-bells, and Indian clubs. Considerable pains have been taken with all these exercises, but there is a tendency to work too fast, and the result is apparent in the want of muscular development revealed by the applied work. The last-named is taken by a class of 16. Seventeen swimming certificates have been won. The school belongs to the Cricket League, and a team played matches through the summer. A fortnight was spent in camp.

Health.—The same arrangements for medical supervision have been made as in the Kirkdale school. The cases treated are

of like character, *e.g.*, affections of the heart, eye, and ear, strumous glands, adenoids, skin troubles. But there has been no epidemic. The arrangements for the dentist are given in the Addison Street report.

Conduct.—A boy was sent to a reformatory for stealing. Three boys have been sent to ordinary industrial schools for misbehaviour, and three girls on account of home surroundings. There is otherwise very little to note except two cases of pilfering, a few of boyish mischief, a very few of truanting, and only two of unpunctuality. A novel mark system for the attendance of the various standards at breakfast has been started with excellent results.

General remarks.—Good results have again been obtained, and the relations between the staff and the children continue a satisfactory feature. A more accurate knowledge of the condition of all children who have left should be aimed at, and increased efforts made to find situations for those who are leaving.

Addison Street, Liverpool.

Visited.—6th and 7th November, 8th February, 22nd October, and 13th April, 1907.

Inmates.—*Boys.*—Total number in school, 127; voluntary cases, 13; on licence, 3; absconders, 0.

Girls.—Total number in school, 96; voluntary cases, 5; on licence, 6; absconders, 0.

Staff.—Superintendent, Miss M. Tarry (t. & c.). Mrs. A. Hulme (t. & c.) came as extra assistant teacher from 1st February, 1907, to 31st July, 1907. An assistant manual instructor was appointed on 16th September, 1907.

Premises.—There has been no alteration in the buildings. A forge has been fitted in the basement for the metal-working shop. A room has been fitted up for the dentist, and children from the other day industrial schools are to attend here.

Standards with awards.—*Boys.*—Standard VI, 3, good; Standard V, 6, good; Standard IV, 17, good; Standard III, 28, good; Standard II, 29, very fair; Standard I, 18, good; Preparatory, 23, good.

Girls.—Standard V, 6, good; Standard IV, 13, good; Standard III, 13, good; Standard II, 26, very fair; Standard I, 19, good; Preparatory, 14, good.

The general award is good.

Class subjects.—Singing—sol-fa, good. Composition in V and VI, very fair. Recitation, very fair in V and VI, good in other standards. Mental arithmetic, very fair in II and IV, good in other standards. Geography, very fair in II and IV, good elsewhere. Good object lessons had been given. The development of intelligence is good.

Industrial training.—*Boys.*—Drawing shows steady attention all through, but the work of Standards I and V may be specially commended. In manual instruction the boys showed

a good knowledge of method, but more attention might be paid to finish both as regards the benchwork and the drawing. The remarks on tailoring at Bond Street apply equally to this school.

Girls.—Sewing and knitting are taken by all the girls, but there is room for improvement in this department. Cookery lessons are given regularly by a diplomatised teacher. Special lessons on general housewifery will be most useful.

Physical training, &c.—The course includes free gymnastics and Indian clubs. The classes are taken by the teachers. In some cases more attention is needed in the selection and sequence of the exercises. A few boys are allowed to vault the horse and practise on the ladder. A man should be in charge on these occasions. No swimming certificates were entered for this year. It is not found possible for the boys to join a cricket or football club.

Health.—The general medical arrangements are given in other reports. The class of case is the same in all the day industrial schools, resulting from past neglect and want of nourishment—weak hearts, chorea, eye and skin affections. A death from heart disease and another following an operation occurred during the year. Four cases of typhus are noted, and two mentally defective children were sent to a special school. A surgeon dentist attends here for the benefit of the children of all the Liverpool Day Industrial Schools. The appointment is likely to produce valuable results.

Conduct.—The principal entry is for truancy and sleeping out. The children give very little trouble in the school. 17 children (15 boys and 2 girls) have been sent to industrial schools during the last year.

General remarks.—The schoolroom results show an improvement. A new departure has been made this year in increasing the time for industrial training. This should help in solving the difficulty of starting the children in regular employment.

Manchester.

Visited.—21st and 22nd February, 23rd January, and 25th February, 1907.

Inmates.—*Boys.*—Total number in school, Protestant 78, Roman Catholic 86; voluntary cases, 0; on licence, 0; absconders, 0.

Girls.—Protestant 32, Roman Catholic 31; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Mrs. A. Horth (c.). Miss A. H. Haigh left 4th April, 1906, and Miss M. Smith on 26th November, 1906. They were succeeded as assistant teachers by Miss R. M. Jones (c.) on 7th May, 1906, and Miss Madeleine Sullivan (c.) on 7th January, 1907. There has also been a change in the post of assistant laundress.

Premises.—There has been no change in the buildings.

Standards with awards.—*Boys.*—*Protestant.*—Standard V, 4, good; Standard IV, 19, good; Standard III, 15, good; Standard II, 14, good; Standard I, 14, good; Preparatory, 12, good.

Girls.—Standard V, 3, good; Standard IV, 3, good; Standard III, 5, good; Standard II, 12, good; Standard I, 6, good; Preparatory, 3, good.

The general award is good.

Roman Catholic.—Boys.—Standard V, 4, good; Standard IV, 15, good; Standard III, 16, good; Standard II, 24, good; Standard I, 20, good; Preparatory, 9, good.

Girls.—Standard V, 1, good; Standard IV, 4, good; Standard III, 4, good; Standard II, 9, good; Standard I, 9, good; Preparatory, 4, good.

The general award is good.

Class subjects.—*Protestant.*—Singing—sol-fa, good. Mental arithmetic, good. Geography, good. Object lessons, good. Recitation, good. Composition, good. The development of intelligence is good.

Roman Catholic.—Singing—sol-fa. Mental arithmetic, good. Geography, good. Object lessons, good. Recitation, good. The development of intelligence is good.

Industrial training.—*Boys.*—Most of the classes do very well indeed in drawing. Manual instruction is probably better than it has ever been before. In the shoemakers' shop the boys mend their own boots, and boots from an outside institution are also received for repairing. Technical instruction in this shop has been in abeyance, but is to be re-started. Laundry-work in which both girls and boys are engaged is a great success. All kinds of work are done; large supplies of work from outside sources being taken in.

Girls.—There is a great improvement here in needlework. A capital attempt has been made at making blouses. All the stitches required by the school's scheme have been mastered in a creditable manner, and most girls have completed a garment. Cutting-out tests were well done. A great variety of laundry-work, in which the older girls take part, is done during the year; some of the girls become good hands and get very fair situations direct from the school. No special lessons have been given in cookery; the girls in their turn assist in the general cookery required for the school.

Physical training, &c.—This was as usual extremely good in the case of boys and girls alike. The course being well considered and well executed. The children were taken to camp at Mobberley for three weeks. In this connection it may be mentioned that an outfit is being provided by voluntary contributions. A fine feature of the year is the old boys' annual dinner, at which 105 were present. Among the treats was a tea given by the Heyrod Street Lads' Club, when each child received a present.

Health.—In February, 1906, a boy had scarlet fever. A number of suspected cases were isolated and sent home, but it spread no further. Cases of ringworm, psoriasis, ophthalmia, and anæmia, &c. have been prescribed for and treated in the school. The girls are attended by a lady doctor. One child was sent to the Education Committee's Home for lateral curvature and has not yet returned. A girl is now in hospital for the fourth operation

for tubercular glands. Three girls have had operations for their tonsils.

Conduct.—Wilful disobedience, truancy, sleeping out, and stealing are faults which have had to be corrected among the boys. Two girls, too, have given trouble by their wilful disobedience.

General remarks.—The results of the examination were a credit to all concerned.

Salford.

Visited.—6th and 8th February and 21st January, 1907.

Inmates.—*Boys*—Total number in school, 104; voluntary cases, 0; on licence 4; absconders, 0.

Girls.—Total number in school, 51; voluntary cases, 0; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss A. Garlick (Art. 60). There has been no change in the staff.

Premises.—There have been no alterations in the building, but a fire in the classroom necessitated a new floor.

Standards with awards.—*Boys.*—Standard V, 3, good; Standard IV, 17, good; Standard III, 32, good; Standard II, 22, good; Standard I, 15, good; Preparatory, 15, good.

Girls.—Standard V, 2, good; Standard IV, 4, good; Standard III, 10, good; Standard II, 10, good; Standard I, 15, good. Preparatory, 10, good.

The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good throughout. Recitation, good. Geography, good. Object lessons, good. Composition, good. The development of intelligence is good.

Industrial training.—The staff must be complimented on the advance made in drawing. The senior boys are enthusiastic little wood-workers and are receiving careful attention. In the shoemakers' shop there are points in the technical instruction which more imposing shops might well copy. Tailoring has been begun, and the boys are learning the useful art of repairing their own clothes.

Girls.—Needlework on more practical lines than last year is making progress. The work done, though elementary, is very creditable, button-holing being particularly good. The older girls can now darn stockings very neatly. A large cookery class is held weekly, and good notebooks are carefully kept. The intelligent work done reflects great credit upon the school's cook, who conducts the classes. The older girls assist in the laundry with the children's towels, aprons, &c.; it would be to the girls' advantage if a little variety of work could be introduced.

Physical training, &c.—Free gymnastics, exercises with wands, Indian clubs and dumb-bells are all practised, and the execution is precise and vigorons. The school holds the shield for the Salford Elementary Schools. Considerable interest has been

shown in the school by the members of the committee, the Sudley Council school, and the teachers (beyond their recognised time) by providing entertainments, games, fruit and prizes.

Health.—During the summer several children suffered from ophthalmia and pustulous eczema. The eye trouble was common in the district. The superintendent dressed the cases and there is now only one left. A case of rheumatism, pleurisy, and some accidents are also recorded. The record is an exceptionally full and interesting one. The superintendent continues to weigh and measure the children twice a year.

Conduct.—A few cases of truancy are recorded and one of disobedience. In the schoolroom children have been corrected for laziness and inattention. There is a mark system on which prizes are awarded quarterly.

General remarks.—The work is wonderfully neat and accurate, and reflects much credit on the staff. Several former scholars have visited during the year.

Blackburn.

Visited.—27th March, 13th February, and 23rd April, 1907.

Inmates.—*Boys.*—Total number in school, 14; voluntary cases, 3; on licence, 6; absconders, 0.

Girls.—Total number in school, 10; voluntary cases, 4; on licence, 1; absconders, 0.

Staff.—Superintendent, Miss S. J. Quayle (c.). There has been no change in the staff.

Premises.—All parts of the premises were clean and in good order. There have been no structural alterations.

Standards with awards.—*Boys.*—Standard IV, 4, good; Standard III, 3, good; Standard I, 4, good; Preparatory, 2, making good progress.

Girls.—Standard III, 1, good; Standard II, 1, good; Standard I, 2, good; Preparatory, 3, making good progress.

The general award is good.

Class subjects.—Singing—sol-fa, good. Mental arithmetic, good. Recitation, particularly good. Geography, very fair. Object lessons have been given to the juniors, and history readers have been in use throughout. Intelligence is well developed.

Industrial training.—*Boys.*—Drawing is good all through, and some of the boys attend manual instruction classes at the technical school.

Girls.—The few girls in the school assist with the general housework, washing, and preparing of food; they are taught a little needlework, but this is only very elementary, there is no time for more.

Physical training, &c.—Capital displays of drill with dumb-bells and Indian clubs were given. The boys made a great effort to uphold the school's reputation for swimming, and to

regain the trophy which for two years they had held against all the elementary schools of the district. Despite their small numbers, they were only beaten by the narrowest margin.

Health.—A girl is away in hospital with diphtheria. There has been a good deal of illness in the neighbourhood, but the case alluded to is the only one of at all a serious nature among the children.

Conduct.—Truancy has been confined to one or two girls. Little or no trouble has occurred in the school. The children appear only too anxious to do their best.

General remarks.—For some time past the school has been at a disadvantage through lowness of numbers. No one who has studied the consistently fine work it has accomplished will view its extinction without regret. The building, however, is apparently required for some other purpose, and one can only hope that the Education Committee will have no cause to regret the abandonment of this check to truancy.

The school was closed during the year.

Bootle.

Visited.—14th March, 11th February, and 12th April, 1907.

Inmates.—*Boys.*—Total number in school, 79; voluntary cases, 15; on licence, 1; absconders, 0.

Girls.—Total number in school, 53; voluntary cases, 13; on licence 2; absconders 0.

Staff.—Miss P. Wall (t. and c.) died November 16th, 1906. Miss S. Ratchford (t. and c.) succeeded her as superintendent, 1st December, 1906. On the same date Miss Eileen Behrmann (t. and c.) was promoted first assistant. Miss M. G. Tetlow (Art. 68) Assistant teacher left finally 15th September, 1906. Mrs. Miller (t. and c.) left 28th April, 1906, but returned 20th November, 1906. Miss M. Armour (c.) was appointed 23rd April, 1906, and Miss E. Utting (Art. 50) came 1st April, 1906. There has been a change of cook.

Premises.—The playground was asphalted during the summer, but the work does not seem to have been well done, and already shows signs of wear. The premises were in an admirable state of cleanliness throughout.

Standards with awards.—*Boys.*—Standard V, 1, good; Standard IV, 13, good; Standard III, 17, good; Standard II, 10, good; Standard I, 22, good; Preparatory 16 good.

Girls.—Standard V, 3, good; Standard IV, 7, good; Standard III, 10, good; Standard II, 14, good; Standard I, 12, good; Preparatory 9, good.

The general award in these subjects is good. The work was of exceptional quality.

Class subjects.—Singing—sol-fa, in three groups, good. Composition, good. Mental arithmetic, good throughout. Recitations were particularly good in some classes, and the pieces well chosen. Geography, good. Good object and general knowledge

lessons have been given to all standards. Intelligence is particularly well developed.

Industrial training.—*Boys.*—In drawing almost all standards produced some really excellent work. The manual instruction drawing is first rate; equal precision is required in the bench work. In the shoemaking class some technical instruction might well be introduced.

Girls.—The needlework of the upper standards is good. Not only do the girls make a fair quantity of their own clothes, but they repair and keep in order a supply of stockings and underclothing for themselves, and the boys too. The repairing done on the day of the visit was very good. The new work, especially that in flannel, is of excellent quality. Laundry work, theoretical as well as practical, is taught weekly by one of the teachers. A nice variety of work is provided. Notebooks are kept. Cookery is also taken by one of the teachers; the intelligence displayed by the class does her credit. A little more attention might, with advantage, be paid to the study of the value of foods.

Physical training, &c.—Capital displays of gymnastic, marching, free exercises, and club and dumb-bell drill were given. Both boys and girls put plenty of spirit into the movements. The school has done well at football, and intends to make its presence felt in the cricket league. Its greatest achievement was in swimming, where it was beaten in the final of the local shield contest by the narrowest possible margin. Through the kindness of the Mayoress every child received a Christmas present.

Health.—The medical supervision is careful and thorough. Among the cases treated have been mumps, chorea, swollen glands, and various eye and skin troubles. A girl died in hospital from disease of the ear in July. Another was in hospital with an injury to her leg. Special attention is given to ensuring the cleanliness of the girls' heads.

Conduct.—Truancy and unpunctuality are practically the only faults recorded. Inside the school the children give little or no trouble. They receive every encouragement to do their best, and take a very evident pride in the welfare of their school.

General remarks.—Throughout its existence the school has consistently earned the best of reports. No one who thoroughly investigates its work can fail to realise its importance as a social factor; and it is regrettable that more children are not admitted to share in its benefits.

Drury Lane, London, W.C.

Visited.—20th February, 19th April, and 6th July, 1907.

Inmates.—*Boys.*—Total number in school, 98; voluntary cases, 3; on licence, 4; absconders, 0.

Girls.—Total number in school, 9; voluntary cases, 2; on licence, 0; absconders, 0.

Staff.—Superintendent, Mr. T. Humphreys (t. and c.). There have been changes of caretaker and bandmaster and cook. The

head teacher, Miss M. Stansfield (t. and c.), is leaving shortly owing to ill-health. During her temporary absence Mrs. Jury acted as supply teacher.

Premises.—A new boiler has been put in. Otherwise the buildings are unaltered. All parts were clean and in order.

Standards with awards.—*Boys.*—Standard VI, 2, good; Standard V, 3, good; Standard IV, 14, good; Standard III, 30, very fair; Standard II, 26, good; Standard I, 18, good; Preparatory, 2, new-comers.

Girls.—Standard V, 1, good; Standard IV, 1, good; Standard III, 4, very fair; Standard II, 2, good; Standard I, 1, good.

The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Mental arithmetic, good. Recitation, good in upper standards, very fair in III and II. Geography, good. Good object lessons have been given, and history readers have been used with advantage. Intelligence is well developed.

Industrial training.—Finish and cleanliness, particularly in the mechanical work would well repay the effort. Standard II sets an example in these respects which might well be followed by the rest of the school. Manual instruction shows improvement on the year's work, but the importance of self-dependence, such as is required when working a test, should be kept well to the fore. Technical instruction is well to the fore in the shoemaking shop, while that in the printing shop is unsurpassed in any other school. The girls gain some training by assisting the cook in the general kitchen work. The band of 32 boys is kept up, but is just now hardly at its best.

Physical training, &c.—Capital displays were given of free gymnastics, with some jumping, and a little applied work. The scheme is well adapted for a school of the kind. The school once again enjoyed the hospitality of Mr. and Lady Rose Weigall at Ramsgate for three weeks. Many excursions have been made to places of interest in London. Every opportunity is taken for outdoor games, and every boy is taught swimming.

Health.—The worst case in the school is a girl who has scrofulous glands and adenoids. Her parents refuse to allow an operation. A boy has necrosis of tibia, the result of a severe accident years ago. He and others who require it are sent to hospital for treatment. Other cases noted are one each of scarlet fever, bronchitis, and ringworm. The general health has been very good.

Conduct.—The conduct has been satisfactory throughout the year. Very few cases of misconduct are noted, though one boy who had given some trouble here was sent to a residential school for an offence committed outside.

General remarks.—Among the many fine features which go to place this school in the very front rank, high commendation is due to the care taken to place the children in good situations on leaving The weekly reunions form an excellent means of keeping in touch with old scholars.

Brunswick Road, London, E.

Visited.—17th May and 20th and 22nd June, 1907.

Inmates.—*Boys.*—Total number in school, 63; voluntary cases, 9; on licence, 0; absconders, 0.

Girls.—Total number in school, 17; voluntary cases, 1; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss M. A. J. Boon (c.). Miss M. M. Ryley (t. and c.) left 8th April. Mrs. Wild (c.) was appointed supply teacher on that date.

Premises.—The premises were clean throughout. An elaborate outside staircase has been built at a cost of £700, which may help some of the children to escape in case of fire. At comparatively trifling cost the accommodation in the boys' lavatory might be improved, and an immense amount of time and trouble saved.

Standards with awards.—*Boys.*—Standard V, 4, good; Standard IV, 9, good; Standard III, 21, good; Standard II, 15, good; Standard I, 9, good; Preparatory, 4, making good progress.

Girls.—Standard V, 1 good; Standard IV, 7, good; Standard III, 4, good; Standard II, 2, good; Standard I, 1, good.

The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, good. Recitation, good generally; very fair in III. Mental arithmetic, good. Geography, good. Good object lessons have been given.

Industrial training.—*Boys.*—The second and fourth Standards' drawing takes the lead; the remainder would gain by extra attention to cleanness and finish. In no day industrial school is the manual instruction treated more successfully than here. Technical instruction is receiving good attention in the shoemakers' shop, and the boys are particularly keen.

Girls.—Some good needlework has been done under a special teacher. More might be attempted, and the older girls should learn to cut out simple garments, and also learn to use the sewing machine. All the big, strong girls assist in the laundry. The work here is good. Cookery lessons are given weekly by the superintendent. Some intelligent answers were given to questions. The well-instructed band is a credit to the school.

Physical training, &c.—Physical drill is taken daily by both boys and girls. A brilliant exhibition of free gymnastics was followed by some elementary work on apparatus, which was very well done. The boys are keen sportsmen; and every opportunity is taken for cricket and football, though the nearest playfield, Victoria Park, is three miles off. The school acquitted itself with great credit in the Home Office Football League. Through the kindness of friends the school had a three weeks' holiday at Ramsgate in the summer, and there have been various little outings.

Health.—Health is carefully looked after. The medical officer makes a quarterly inspection of all the children, and the superintendent attends to the minor troubles. Several delicate girls have been sent to a convalescent home, and boys whose teeth require attention are sent to a dental hospital.

Conduct.—This has given very little trouble, and there is practically none when once the children have settled down. Two boys were sent to residential schools for stealing, and there were four or five other cases of dishonesty, though in some of these home influences were at fault. The general conduct has been excellent; the tone is delightfully bright and breezy, and the children reciprocate fully the devoted interest taken in them by the staff.

General remarks.—No one who visits this wonderful little school can fail to be impressed by the splendid social work it accomplishes. The only pity is that its accommodation is not fully utilised.

Ponton Road, London, S.W.

Visited.—13th July, 26th June and 19th June, 1907.

Inmates.—*Boys.*—Total number in school, 47; voluntary cases, 3; on licence, 0; absconders, 0.

Girls.—Total number in school, 9; voluntary cases, 0; on licence, 0; absconders. 0.

Staff.—Superintendent, Mr. H. Hartland. There has been no change in the staff.

Premises.—The outside staircase has been completed.

Standards with awards.—*Boys.*—Standard V, 5, very fair; Standard IV, 13, good; Standard III, 14, good; Standard II, 7, good; Standard I. 12, good; Standard 0, 4, good.

Girls.—Standard IV, 1, good; Standard II, 4, good; Standard I, 3, good; Standard 0, 1, good. The general award is good.

Class subjects.—Singing—sol-fa, very fair. Composition, in V and III, good. Recitation, good. Mental arithmetic good in III, very fair elsewhere. Geography, very fair. Object lessons have been given throughout. The development of intelligence is on good lines.

Industrial training.—*Boys.*—The drawing is very well understood; more attention to finish would well repay the effort. In manual instruction greater attention requires to be paid to accuracy in elementary details as they recur in later work. In the shoemakers' shop the boys are as keen as the teacher is thorough, both in theory and practical work. Several boys in the band promise well.

Girls.—In needlework only very elementary work has been attempted. More time and better conditions are required for this subject. A few of the older girls have been taught to work the sewing machine. Cookery lessons are taught at the Centre; answers to questions were not very intelligently given. Teacloths and other small articles used in the kitchen are washed by the girls, but there is not much scope for actual training.

Physical training, &c.—The free gymnastics, dumb-bell exercises, &c., are very fair. More attention should be given by means of gymnastic marching to the development of the lower part of the body. There are three squads in the gymnasium, and some

very fine work was shown on the parallel bars and over the horse. Lantern and gramophone lectures have been given in the winter, and the Chairman gave the school a treat at the "Zoo."

Health.—The medical officer visits once a quarter and examines all the children. Special cases to which he has attended have been of blepharitis, conjunctivitis, eczema, and adenoids. The last named have been removed. One boy has recently been operated on for cataract. The children use tooth-brushes, but there is no special examination of the teeth.

Conduct.—The conduct has been good, and, with the exception of 20 cases of truanting, there have been no punishments. There is a mark system which includes a reward for the average monthly attendance.

General remarks.—There is an improvement in the schoolroom work. The efforts made to start these children when school life ends are deserving of all praise. Of 27 children who have left during the year situations have been found for 21.

Wolverhampton.

Visited.—27th June and 20th July, 1907.

Inmates.—*Boys.*—Total number in school, 29; voluntary cases, 0; on licence, 0; absconders, 0.

Girls.—Total number in school, 13; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss Kirby (t. and c.). No change in staff.

Premises.—Schoolroom has been re-coloured. No structural alterations. All parts of the building are clean.

Standards with awards.—*Boys.*—Standard V, 5, good; Standard III, 5, good; Standard II, 5, good; Standard I, 6, good; Preparatory, 8, new-comers.

Girls.—Standard IV, 2, good; Standard III, 3, good; Standard II, 4, good; Standard I, 3, good; Preparatory, 1, new-comer.

The general award is good. Work generally above the average.

Class subjects.—Singing—sol-fa, good. Composition, in Standard V, good. Recitation, good; above the average. Mental arithmetic, good in all standards; in II and V above the average. Geography, good in all standards. History readers intelligently used. Object lessons, good.

Industrial training.—*Boys.*—This little school still maintains its good reputation in drawing. The woodwork instruction is generally sound and thorough.

Girls.—Needlework has been taught in grades, and is well done on the whole. Some garments have been made, but cutting-out by the girls has not been attempted this year. The pinafores, towels, &c., used in the school are washed by the girls under the guidance of the cook. Clothes are nicely washed and ironed. No special lessons have been given in cookery, but the girls all take a turn at assisting the cook. In future special lessons will be arranged for.

Physical training, &c.—Dumb-bell, marching, and free exercises were vigorously performed. All the work was good. The boys attend the baths during the summer months, and all the children frequently attend the parks. A day's outing into the country was enjoyed last summer, and the children are anticipating another picnic this year. The Christmas dinner was held as usual.

Health.—There was one case of abscess in the neck, one case of weak heart, and one of skin disease. There has been more than one epidemic in the neighbourhood, but they have not affected the health of the children here. A lady doctor has been appointed to the school, and attends when necessary.

Conduct.—There have been a few cases of truancy, disobedience, and idleness, but good conduct has, as usual, been easily maintained.

General remarks.—All the work done on the day of examination was of the highest quality. It is regrettable that so excellent an institution should languish for children when there must be several in Wolverhampton in need of its influence and training.

Edgar Street, Leeds.

Visited.—25th June, 19th September, 11th June, and 22nd January, 1907.

Inmates.—*Boys.*—Total number in school, 64*; voluntary cases, 9; on licence, 0; absconders, 0.

Girls.—Total number in school, 34*; voluntary cases, 8; on licence, 1; absconders, 0.

Staff.—Miss Madelaine Milnes, superintendent, died 6th September, 1906, and was succeeded by Miss L. M. Mitchell (c.), 9th October, 1906. Miss M. J. Prentis (c.) acted as temporary teacher from 23rd October, 1906, till 15th April, 1907. Miss E. Birks (ex p.t.) was appointed as additional teacher 15th April, 1907. Miss A. A. Moore (c.) and Miss K. Ossitt (ex p.t.) are the other assistant mistresses.

Premises.—The schoolroom has been fitted with incandescent lights, and skylights have been added to roof of large schoolroom. The drains are at present being overhauled. There have not been any structural alterations.

Standards with awards.—*Boys.*—Standard V, 1, good; Standard IV, 11, good; Standard III, 19, very fair; Standard II, 13, good; Standard I, 14, very fair; Preparatory, 4, new-comers, know very little.

Girls.—Standard IV, 7, good; Standard III, 12, very fair; Standard II, 6, good; Standard I, 7, very fair; Preparatory, 1, new-comer, knows very little. The general award is just good.

Class subjects.—Singing—sol-fa, good. Composition, in IV and V, good. Recitation, good in Standards IV, V, and I; very

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* Two boys and one girl absent, sick.

fair in III and II. Mental arithmetic, good in Standards V, IV, and II; very fair in I, and fair in III. Geography, good in all Standards. Object lessons good throughout.

Industrial training.—Drawing is receiving steady attention, while extra pains are taken to develop the work when children show ability above the common. The boys who attend for manual instruction receive first-rate tuition at the Beckett Street centre. Otherwise there is little industrial training; and the introduction of such work as boot repairing which has proved of advantage in other day industrial schools, could not fail to be of advantage here. Good needlework is done by all the girls. It would be an advantage to allow the older girls an opportunity of learning cutting-out and machining. The girls are taught cookery and laundry-work by a diplomatised teacher at one of the town's centres; they have a good knowledge of this work and answer intelligently.

Physical training, &c.—Dumb-bell exercises were exhibited by all the children, and fine displays of jumping, vaulting and climbing were shown by boys and girls in the gymnasium. A day's outing to the seaside last summer and the annual dinner and entertainment at Christmas were enjoyed. Visits have been paid to the museum, menagerie, and East End Park. A cricket team has lately been formed by the boys.

Health.—The health of the children has been good generally. A few mild cases of sickness have occurred; any case requiring special care has been sent to the hospital.

Conduct.—Conduct has caused very little anxiety. A few entries of truancy, unpunctuality, and disobedience occurred, but amidst the changes that have taken place in the staff during the year there has been no insubordination. The manners and behavionr of the children continue to be creditable to the staff.

General remarks.—This school experienced a sad loss by the sudden death of its able and devoted superintendent in September, 1906. It speaks well for the new superintendent and her staff that the work has gone on regularly, and that the children have, on the whole, passed a good examination.

Czar Street, Leeds.

Visited.—26th June, 20th September, 13th June, and 23rd January, 1907.

Inmates.—*Boys.*—Total number in school, 49*; voluntary cases, 21; on licence, 1; absconders, 0.

Girls.—Total number in school, 33; voluntary cases, 13; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss L. A. Dobbings (c.). Miss Claxton, assistant teacher, left in February and was succeeded by Mrs. R. King, March 5th, 1907. There have been no other changes in staff.

* Three absent.

Premises.—Drains in school yard have been thoroughly overhauled. No structural alterations have been made.

Standards with awards.—Standard V, 13, good; Standard IV, 11, good; Standard III, 20*, very fair; Standard II, 14, good; Standard I, 12, good; Preparatory, 9, quite new children.
The general award is good.

Class subjects.—Singing—sol-fa, good. Composition, in Standard V good. Recitation, good in all standards. Mental arithmetic, good in IV, II, and I, above the average in V, fair in Standard III. Geography good in both groups. Object lessons, good throughout.

Industrial training.—In drawing, Czar Street is in the front rank of Day Industrial Schools. Manual instruction shows solid improvement all round. The remark in the Edgar Street report, with reference to the extension of industrial training, applies equally to this school. Needlework is fair on the whole. Too much attention has been paid to mere specimens. Some of the articles made are very fair, but the work of the older girls is altogether too elementary. Cookery lessons by a visiting diplomatised teacher are given fortnightly. A few of the girls have a good idea of this work and answer questions intelligently. Lessons in laundry work are also given by a diplomatised teacher, and, in addition, the senior girls help to wash the tablecloths and towels, and iron the overalls used by the girls in the schoolroom.

Physical training, &c.—Wand drill, marching, breathing, and free exercises were well performed. Most of the positions were correct. All the children were taken to Saltburn for a day in July last; the outing was thoroughly enjoyed.

Health.—The school was closed for an extra week at Christmas owing to there being an epidemic of sore eyes. One child has died during the year of heart failure. One girl suffered from a very sore head, and there have been two cases of eczema, one case each of chicken-pox, tonsilitis, mumps, bronchitis, whooping cough, and scarlet fever. All the children are well at present, with the exception of the scarlet fever case; this has only developed lately.

Conduct.—Cases of truancy, disobedience and swearing are recorded, but the general behaviour has given very little trouble this year.

General remarks.—There have been changes in the schoolroom and a fair amount of ill-health among the children and staff; but, notwithstanding these facts, the school has passed a good examination.

Edinburgh.

Visited.—29th April, 18th March, 4th May, 16th October, and 12th November, 1907.

* A large proportion of the children in this class are new scholars.

Inmates.—*Boys.*—Total number in school, 129; voluntary cases, 0; on licence, 0; absconders, 1.

Girls.—Total number in school, 18; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss. L. Clark (c.), was succeeded by Miss J. J. Reith on the 3rd September, 1907. There have been changes of janitor and cook.

Premises.—There have been no alterations in the premises, which were clean and in good order throughout.

Standards with awards.—*Boys.*—Standard V, 1, good; Standard IV, 15, good; Standard III, 27, fairly good; Standard II, 37, good; Standard I, 38, good; Preparatory, 9, mostly newcomers.

Girls.—Standard IV, 1, good; Standard III, 3, fairly good; Standard II, 4, good; Standard I, 7, good; Preparatory, 3, mostly newcomers.

The general award is good. Indeed, some of the work is considerably above the average.

Class subjects.—Singing—sol-fa, good (above the average of Day Industrial Schools). Mental arithmetic, good in V, fair in III, very fair elsewhere. Recitation, good throughout. Geography, good throughout. History readers have been used, and object lessons have been well given to all the classes.

Industrial training.—*Boys.*—Additional emphasis might be placed upon scale-drawing and the right-line work of II and III. Drawing otherwise is good. The work in manual instruction done during the year is good, though somewhat limited in amount. An effort should be made for the boys to produce equal quality of workmanship when left to themselves. The special manual instruction drawing requires finish.

Girls.—Needlework is carefully taught to the girls; the stitches are good and the work is kept clean. Stocking darning and re-footing have been attempted this year, the work shown being highly satisfactory. The older girls assist with cooking, general kitchen and laundry-work, but have not yet had any special lessons in cookery or laundry-work. The girls assist in the kitchen in rotation, mend their own clothes, darn stockings, and wash the school towels and table cloths, &c.

Physical training, &c.—The Board's physical instructor visits the school weekly. The senior boys gave a smart display of free gymnastics, and some of them showed considerable skill on the apparatus. Generally, these boys are a smart-moving lot, and quickly respond to any call made upon them for physical work.

Health.—The staff keep a general look-out for cases of children suffering from any form of ailment, and send them to a public dispensary or to the royal infirmary. It is anticipated that in future the children will be regularly inspected by the recently appointed medical officer to the Board.

Conduct.—The list of offences is not a very long one. Almost all the entries refer to truancy. As is usual in Day Industrial Schools, when once the children are inside the building they give very little trouble.

General remarks.—Excellent work has again been done in the school during the year, and it is gratifying to find that the question of after supervision of the children is receiving the earnest consideration of the committee.

Green Street, Glasgow.

Visited.—18th April, 26th March, 30th January and 29th November, 1907.

Inmates.—*Boys*—Total number in school, 102; voluntary cases, 9; on licence, 3; absconders, 0.

Girls.—Total number in school, 65; voluntary cases, 1; on licence, 6; absconders, 0.

Staff.—Superintendent, Miss M. M. Duncan (c.). Miss S. W. Munro (ex. p.t.) left 31st December, 1906. Miss I. McLaren (ex. p.t.) was appointed to succeed her 24th December, 1906.

Premises.—A valuable addition is the new covered shed which has been built in the girls' playground. Four basins have been added in the lavatory, and various small improvements have been effected. A greenhouse, the gift of the convener of the school, apart from its educational value, adds still further to the attractiveness of the entrance, where the little flower pots are an almost unique feature in a town school.

Standards with awards.—*Boys*—Standard VI, 6, good; Standard V, 9, good; Standard IV, 16, good; Standard III, 12, good; Standard II, 15, good; Standard I, 17, good; Preparatory, 5, good; Infants, 22, good.

Girls.—Standard VI, 1, good; Standard V, 4, good; Standard IV, 7, good; Standard III, 8, good; Standard II, 9, good; Standard I, 9, good; Preparatory, 2; Infants, 24, good.

The general award is good, and the work is creditably neat throughout.

Class subjects.—Singing—sol-fa, good. The songs are specially well rendered. Composition, good. Mental arithmetic, good generally. Geography, very fair in IV and III, good otherwise. Recitation, good. History and nature study have been taught to all, and a useful course of lessons in hygiene has been given. Intelligence is well developed.

Industrial training.—*Boys*—Much careful attention has been given to drawing with corresponding good results. The manual instruction drawing is good, but there does not appear to be sufficient appreciation of the value of accurate bench work. This should be remedied during the forthcoming year.

Girls.—Needlework, on the whole, is quite above the average for this class of school, but care must be given to cutting-out. Dressmaking is given by a special teacher to 18 girls who are doing very good work. Twelve girls can work the sewing machine, and a few of the delicate girls are being taught the knitting machine with a view to its being of value to them in after life. Laundry-work and cookery receive great care, lessons are given by a diplomatised teacher. The answers given were

very creditable. Useful lessons in domestic economy and hygiene are also introduced. Places are found for as many as possible on leaving the school, and a suitable outfit provided; while every effort is made to keep in touch with the old scholars.

Physical training, &c.—A capital system of free gymnastics is in force, and the exercises were done with plenty of spirit by both boys and girls. Football receives every encouragement. One hundred and fifty children benefited last summer by the fresh air fortnight scheme, and there have been several treats and outings. The small library is made good use of.

Health.—The health is carefully watched by both the doctor and the staff. There has been no real illness, though two girls who were admitted with phthisis have been placed on the reserve register. Delicate children receive special diet. All to-day looked bright and healthy, and exceptionally clean.

Conduct.—Conduct has been excellent. The handful of offences relate almost entirely to truancy, and this is more often than not the fault of the parent. The children, indeed, may be said to have occasioned no difficulty in this or any other respect.

General remarks.—An admirably managed school, where the utmost is done for the children that an untiring energy and devotion can accomplish.

Rottenrow, Glasgow.

Visited.—27th February, 23rd May, and 29th January, 1907.

Inmates.—*Boys.*—Total number in school, 133; voluntary cases, 9; on licence, 1; absconders, 0.

Girls.—Total number in school, 114; voluntary cases, 3; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss J. Brown (c.). Mr. Morrison, drill instructor, left 31st August, 1906, and Mr. Cunningham has returned to his former post.

Premises.—There have been no structural alterations, but the drill room has been painted. The large increase in the number of girls renders their bath-room accommodation cramped. It might be possible, at a trifling cost, to make a garden plot in the front yard, and so provide a useful training for a few boys.

Standards with awards.—*Boys.*—Standard VI, 3, good; Standard V, 8, good; Standard IV, 12, good; Standard III, 23, good; Standard II, 25, good; Standard I, 30, good; Preparatory, 32, making good progress.

Girls.—Standard VI, 1, good; Standard V, 11, good; Standard IV, 12, good; Standard III, 15, good; Standard II, 26, good; Standard I, 16, good; Preparatory, 33, making good progress.

The general award is good. IV and III hardly attain this level. The preparatory class is particularly well taught.

Class subjects.—Singing—sol-fa, very fair. Composition, good. Mental arithmetic, good in VI, V, II, and I; very fair in IV and III. Recitation, good in VI, V, II, and I; very fair otherwise. Geography, good generally; very fair in IV, III,

and II. Some good object lessons have been given. Intelligence is well developed.

Industrial training.—*Boys.*—Drawing requires greater clearness and neatness, particularly in the mechanical subjects. Some of the boys do really excellent manual instruction drawing, and this fact should be an encouragement to the schoolroom teacher. The best work, relatively, is done by the infants. Good practical work continues to be done in the manual instruction shop. The brushmaking shop is a busy little place, and workmanlike; and the boys are keen on bits of information surrounding their subject.

Girls.—Needlework is very fair. The upper standards and Standards I and II did very creditable work, but there is room for improvement in Standard IV. The knitting in all standards is particularly creditable. Cutting out of simple garments should be persevered with; it would be a great advantage to the older girls if they could get some little experience with the sewing machine. Cookery and laundry lessons are given weekly during certain periods of the year by a diplomatised teacher, but in both these branches the girls could do with supplementary work being introduced into the daily routine.

Physical training, &c.—The physical exercises are taken by boys and girls in several sections, and are first rate in every respect. A vaulting horse would be a valuable addition to the equipment. Every opportunity for football is taken. The children have received and given quite a number of entertainments. The Kyrle Society held a flower show here in March. Many of the children had the benefit of the fresh air fortnight at the coast.

Health.—The health has been extremely good all through the year. Beyond single cases of bronchitis and keratitis and a few colds, no ailments are recorded. Two children were absent in hospital, one with rheumatism and one suffering from debility. A new girl shows a tendency to phthisis.

Conduct.—Some cases of truancy are practically the only ones noted. One or two of the boys concerned have been sent to residential schools. Little or no trouble has occurred in the school itself. The children are tactfully guided, and are encouraged to do their best by a system of marks and rewards.

General remarks—This school is well managed, and the children respond readily. The lasting influence of the training was strikingly illustrated at a reunion held by the superintendent last May, when over 200 old pupils attended. Some of them had left the school 20 years ago. A special word of praise, too, is due to the arrangements for finding situations for children on leaving.

Rose Street, Glasgow.

Visited.—20th and 21st May and 31st January, 1907.

Inmates.—*Boys.*—Total number in school, 111; voluntary cases, 0; on licence, 0; absconders, 0.

Girls.—Total number in school, 92; voluntary cases, 1; on licence, 2; absconders, 0.

Staff.—Superintendent, Miss L. Comrie (c.). There has been a change of visiting physical instructor.

Premises.—The interior of the premises has been painted throughout; the whole place has a much brighter appearance than formerly.

Standards with awards.—*Boys.*—Standard V, 7, good; Standard IV, 8, good; Standard III, 12, very fair; Standard II, 28, good; Standard 29, good; Infants, 28, good.

Girls.—Standard VI, 3, good; Standard V, 3, good; Standard IV, 8, good; Standard III, 10, very fair; Standard II, 19, good; Standard I, 20, good; Infants, 26 good.

The general award is good.

Class subjects.—Singing—sol-fa, good. (This subject has improved.) Composition, good in VI, and fairly good in V. Recitation, very fair in III, good elsewhere. Mental arithmetic, fair in III and V, very fair in IV, good elsewhere. Geography, fair in III and V, good elsewhere. History readers have been used, and object lessons given to the juniors. The development of intelligence is generally good.

Industrial training.—*Boys.*—Drawing is the one really weak subject in the school. Doubtless, with a clearer understanding of its importance—particularly in the mechanical work—an improvement will soon be effected. It is anticipated that manual instruction will also improve. Printing has been for sometime in abeyance, owing to the illness of the master printer. 18 boys work at paper bag making.

Girls.—Needlework on the whole is fairly good, though more cutting-out should be attempted and should be practised on material as well as paper. The uses of the different stitches should also be understood. As many of the elder girls as possible should be taught to use the newly-acquired sewing machine. Cookery lessons are given weekly by a diplomatised teacher. Some useful dishes have been taught and the girls have a very fair knowledge of the prices of foods. Laundry lessons had not been given for some time, but have now been resumed.

Physical training, &c.—Senior and junior squads of both boys and girls gave vigorous displays of free gymnastics. This department of training is improving. The institution of a vaulting horse would be an excellent thing The whole school had a day's outing to Ardnadam last summer, and 120 children spent a fortnight in the country through the agency of the fresh air fund. There was also a new year's party and entertainment.

Health.—The medical officer visits weekly. One case each of abscess, St. Vitus' dance, enlarged glands and conjunctivitis are recorded.

Conduct.—The list of offences is short. The majority of entries refer to tenancy; the remainder mainly to trifling matters of disobedience.

General remarks.—Drawing is a weak feature, but in several other respects creditable improvement has been effected, and the general outlook is encouraging.

William Street, Glasgow.

Visited.—19th April, 27th March, 1st February, and 29th November, 1907.

Inmates.—*Boys.*—Total number in school, 57; voluntary cases, 4; on licence, 1; absconders, 0.

Girls.—Total number in school, 43; voluntary cases, 0; on licence, 0; absconders, 0.

Staff.—Superintendent, Miss A. Neilson (c). Miss Montgomery (ex-p.t.) assistant teacher, left 30th September, 1906. Miss K. Irving (Art. 68) took her place from 1st October, 1906, to 1st January, 1907, when she was succeeded by Miss I. Smith (ex-p.t.).

Premises.—There have been no structural alterations. The premises are clean and in order throughout.

Standards with awards.—*Boys.*—Standard V, 6, good; Standard IV, 11, good; Standard III, 5, good; Standard II, 13, good; Standard I, 8, very fair; Preparatory, 8, making progress.

Girls.—Standard V, 2, good; Standard IV, 4, good; Standard III, 9, good; Standard II, 8, good; Standard I, 8, very fair. Preparatory, 12, making progress.

The general award is good.

Class subjects.—Singing—both notations, good. Composition, good. Mental arithmetic, good generally, very fair in IV and I. Geography, good. Recitation, very fair in V and IV, good in other standards. Useful object lessons have been given. Intelligence is well developed.

Industrial training.—*Boys.*—Drawing is weak in Standards II and III, but in the higher standards has received very fair attention. Some very good extra work has been done by individual scholars. The manual instruction drawing is fairly good, but the practical bench work was almost an entire failure. A grant is recommended with hesitation.

Girls.—Needlework is very fair. All the girls are taught to sew and knit, but only elementary work is done. Cutting-out is about to be introduced, and it is hoped that the older girls may have the opportunity of learning the sewing machine. Cookery is taught by a diplomatised teacher. The girls know their work well, their answers to questions being good. Notebooks should be regularly marked. Lessons in laundry-work are just beginning. The girls take part in the washing and general housework of the school.

Physical training, &c.—The physical training is on good lines. The free gymnastics were smartly performed by both boys and girls. The small area available for play is made the most of. There have been occasional entertainments.

Health.—The majority of the children appear to be of a far from robust type. The fact that they have escaped the various epidemics which have visited the neighbourhood speaks well for the care with which the health is looked after. There have been various skin diseases, and other minor ailments, but apparently nothing of a serious nature.

Conduct.—Truancy and petty misdemeanour account for all the entries in the record. Apart from the result of home influences the children give little trouble.

General remarks.—The school passed a satisfactory examination. In making the schoolroom award, credit is given for the number of children who have been passed through two standards in the year. It might be found possible, by more judicious grouping, to economise teaching power.

APPENDIX No. II.—(E).

Nautical Inspection of Reformatory and Industrial School Ships.

Form of Report.

Instructions.—The Officer Inspecting is requested to pay special attention to the points set out below, and to state in his report whether in those respects he considers the ship efficient; and, if not, in what particular respect any improvement can be suggested. He is at liberty to add such observations of a general nature as may occur to him with regard to the nautical training on board the ship:—

I. Condition and cleanliness of ship, and especially the bilges.

II. Arrangements and appliances for putting out fire.

III. Condition and number of boats for exercising boys in pulling.

IV. Equipment of the ship generally in the way of masts and yards, rigging and sails, for the purposes of instruction as a training ship.

V. The physical condition of the boys and their proficiency in the various nautical drills and exercises taught on board.

VI. Whether boys are properly taught to "make and mend clothes" and the use of the "palm and needle."

Report.

Industrial School Ship "Clio."

Date of Visit of Inspection, 29th November, 1907.

I. Very clean. Bilges dry and sweet.

II. Very good.

III. Ten. Very good.

IV. Very good. Barque-rigged in summer. Good models.

V. Very good.

VI. Taught to make and mend clothes, also use of palm and needle.

The ship was beautifully clean in all respects, boys, though very small, looked healthy and cheerful, moved and carried out all their drills smartly. Great attention is paid to signal instruction (the chief officer being an ex-yeoman of signals). The establishment is a credit to the captain and officers.

J. C. A. WILKINSON,
Captain.

Report.

Industrial School Ship "Mount Edgcumbe," at Saltash.

Date of Visit of Inspection, 12th November, 1907.

I. Very good. Sweet and clean.

II. Very good.

III. Eight boats, amply sufficient.

IV. Very good and sufficient. Barque-rigged, sails bent on fore in summer. Sailing tender in summer.

V. Boys looked thoroughly healthy and moved smartly at their drills; well looked after.

VI. Make all clothes except trousers. Taught to repair, also make their own boots. Taught to use palm and needle

A thoroughly useful training ship.

J. C. A. WILKINSON,
District Captain,
H.M. Coastguard, Western District.

Report.

Industrial School Ship "Wellesley."

Date of Visit of Inspection, 13th June, 1907.

I. Very clean, bilges sweet.

II. Hand pumps and appliances.

III. Nine boats, condition "very good."

IV. Square-rigged and models.

V. Physical condition "very good"; drill with small arms, and in physical training "very good."

VI. Yes.

CHAS. H. DARE.

Report.

National Nautical School, Portishead, Somerset (late "Formidable" Industrial School Ship.)

Date of Visit of Inspection, 12th September, 1907.

I. The school very clean throughout.

II. Very good.

III. Two ten-oared cutters.

IV. One mast erected in the grounds. A sailing tender and models.

V. Very good.

VI. Make all their clothes, including boots.

A most excellent establishment in every way. Well-ventilated dormitories and class room heated by steam. Splendid gymnasium. Washing and sanitary arrangements very good. Boys well looked after and carefully instructed. A matron looks after the younger boys.

I fully endorse Commander Still's remarks about a second 7-pr., as it would enable one to compete with the other and give greater interest in the drill.

A swimming bath and rifle range will be started.

J. C. A. WILKINSON,
Captain.

Report.

Industrial School Ship "Southampton."

Date of Visit of Inspection, 9th August, 1907.

I. Ship clean. Bilges clean and sweet.

II. Fire engine, portable.

III. Six boats, condition "good."

IV. Square-rigged. Also square-rigged model.

V. Students were encamped at Hornsea during my inspection of ship.

VI. Yes.

CHAS. H. DARE.

Report.

Industrial School Ship C.T.S. "Empress."

Date of Visit of Inspection, 27th September, 1907.

I. Very satisfactory.

II. Satisfactory.

III. Thirteen, very good.

IV. Ship fitted with mast and yards, but no sails; instructions given in sailing tender.

V. Boys are very undersized, but appear to be smart and proficient in their drills and exercises.

VI. Yes.

C. HOPE ROBERTSON,
District Captain of Coastguard, Edinburgh.

Report.

Industrial School Ship "Mars."

Date of Visit of Inspection, 26th September, 1907.

I. Especially clean and in good order, bilges sweet and clean.

II. Satisfactory.

III. Ten, satisfactory.

IV. Ship fitted with masts and yards, but no sails; instructions given in sailing tender.

V. The physical drills and exercises were carried out with smartness. Great care and attention appears to be paid to the instructors. I was especially pleased with the classes of instruction in carpentry and metal working.

VI. Yes.

C. HOPE ROBERTSON,
District Captain.

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FIFTY-FIRST REPORT

FOR THE YEAR 1907,

OF THE

INSPECTOR

APPOINTED,

UNDER THE PROVISIONS OF THE ACT 5 & 6 WILL. IV. c. 38,

TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS

OF

GREAT BRITAIN.

PART II.—General Report and Appendices III. to X.

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FIFTY-FIRST REPORT

OF THE

INSPECTOR

APPOINTED TO VISIT THE CERTIFIED

REFORMATORY AND INDUSTRIAL SCHOOLS OF GREAT BRITAIN.

PART II.—General Report and Appendices III. to X.

To the
Right Hon. HERBERT JOHN GLADSTONE,
M.P., &c., &c.,
Secretary of State for the Home Department,
and
To the
Right Hon. JOHN SINCLAIR,
M.P., &c., &c.,
Secretary for Scotland.

Great Scotland Yard, S.W.,
August, 1908.

Sirs,

I have the honour to submit to you the second part of the fifty-first Annual Report on the Reformatory and Industrial Schools in Great Britain under inspection during the year ended December 31st, 1907. The first part, containing the list of schools under inspection and the detailed reports of inspections, was published earlier in the year. [Cd. 4052.]

General Remarks.

During the year every school was carefully inspected, and all of them were also visited at least once without notice.

The total number of schools under inspection on the last day of the year was 211, viz., 44 reformatory schools including one ship, 133 industrial schools including seven ships, 12 truant schools, and 20 day industrial schools. In addition there were 31 certified auxiliary homes in connection with industrial schools, 25 being for boys and six for girls.

The total number of juveniles under detention in the three classes of residential schools at the close of 1907 was 26,166, namely, 21,182 boys and 4,984 girls. This shows an increase of 44 boys and 155 girls as compared with the previous year.

In addition to the above there were 3,183 children (101 fewer than at the end of 1906) attending day industrial schools and 221 children on licence from those schools.

The admissions to residential schools during the year 1907 numbered 6,534 (5,510 boys and 1,024 girls), a decrease of 231 (194 boys and 37 girls) as compared with the previous year. The net decrease in England was 86 and in Scotland 145.

The admissions to day industrial schools showed a net increase of 197, viz., 2,164 (1,310 boys and 854 girls) for 1907, against 1,967 (1,223 boys and 744 girls) for 1906.

The following tables show the numbers under detention in each class of school, together with receipts and expenditure at various periods since 1859.

The amounts collected from parents are not, however, received by the managers in the case of residential schools, but paid through the Inspector's Office to the Paymaster General in relief of the Treasury grant. In the case of day industrial schools the parents' contributions are collected and retained by the education authority managing the school in relief of the rates.

REFORMATORY SCHOOLS.

Year.	*Number under Detention.	Paid by Treasury.	Parent.	Rates.	Subscription and Legacies.	Total School Expenditure.
		£	£	£	£	£
1860	3,803	59,230	2,140	2,596	24,903	92,854
1870	6,562	84,423	3,296	19,373	8,600	123,015
1880	7,070	91,781	5,973	23,912	6,005	134,080
1890	5,854	78,863	5,489	24,056	2,793	119,337
1900	5,611	72,437	6,328	24,899	2,246	117,427
1905	5,380	72,981	7,342	30,829	3,644	128,779
1906	5,434	72,790	7,820	31,347	3,569	120,962
1907	5,562	73,232	8,065	33,679	4,906	128,074

INDUSTRIAL SCHOOLS (including Truant Schools).

1870	8,788	92,962	4,540	21,129	59,310	188,779
1880	16,446	167,639	17,000	83,069	29,260	316,175
1890	22,735	194,404	16,657	110,135	34,490	360,947
1900	24,718	192,041	19,272	168,271	24,897	427,670
1905	20,454	179,140	21,366	186,164	33,498	440,951
1906	20,534	173,953	21,279	194,749	46,394	459,879
1907	20,604	178,495	21,662	182,971	58,235	439,086

* These figures represent the total number of children under order of detention, and include those on licence, absconders, &c., liable at any time to return to the schools.

Day Industrial Schools.

Year	Number under Detention.	Paid by Treasury.	Parent.	Rates.	Subscription and Legacies.	Total School Expenditure.
		£	£	£	£	£
1880	1,005*	1,492	258	4,569	825†	8,261
1890	3,698*	6,891	3,382	12,332	982†	25,559
1900	3,253*	7,179	2,741	21,420	1,980†	33,056
1905	3,305*	7,823	2,825	27,954	—	38,920
1906	3,284*	7,807	2,817	27,205	—	38,153
1907	3,183*	7,721	2,736	26,587	—	37,451

* In the case of day industrial schools, the figures represent merely the number of children actually in attendance at the end of the year.

† Received almost entirely by one school (Kirkdale), which was under voluntary management up to 1903, when it was taken over by the Liverpool Education Authority.

An extra allowance in the nature of an aid grant has now been sanctioned for the Reformatories of Scotland on the same lines and subject to the same conditions as in the case of the English schools. The estimate for Reformatories for the year 1908-9, therefore, while remaining at the same figure as for the previous year as regards England, shows a net increase of £1,750 as regards Scotland.

The estimate for Industrial Schools, including Truant Schools, shows a decrease of £1,000 for England and of £450 for Scotland. The estimate for Day Industrial Schools in England is £6,000 and in Scotland is £2,250. The net increase on the whole estimate, including staff and office expenses, is £784.

On pages 155 to 167 of the last published Judicial Statistics, Part I. [Cd. 3929], will be found tables showing for 1906 for both sets of schools, (*a*) the admissions and terms of detention ordered; (*b*) the discharges and terms of detention actually served; and (*c*) the age, sex, and state of instruction of the children admitted. Special tables also show, with regard to Reformatories, (*d*) offences and sentences, and (*e*) previous convictions of offenders admitted.

It has been customary in this Report to print a table compiled from information supplied by the Judicial Statistics showing for a series of years the numbers of children between 12 and 16 and of young persons between 16 and 21 who have been convicted of indictable offences. In the third column is shown the number of children sent to Industrial Schools in each year.

NUMBER OF CHILDREN COMMITTED TO INDUSTRIAL SCHOOLS, AND OF CHILDREN AND YOUNG PERSONS CONVICTED OF INDICTABLE OFFENCES (ENGLAND).

Year.	Convicted of Indictable Offences.		Number of Children committed to Industrial Schools. (3)
	Number between 12 and 16. (1)	Number between 16 and 21. (2)	
1895	5,330	8,634	3,015
1896	5,773	7,834	3,305
1897	5,625	8,063	3,331
1898	6,104	8,489	3,125
1899	5,715	7,592	2,929
1900	6,550	8,046	2,907
1901	6,185	8,468	2,947
1902	6,243	8,584	2,673
1903	6,082	8,938	2,566
1904	5,816	9,332	2,571
1905	6,042	9,443	2,489
1906	5,586	8,808	2,696

REFORMATORY SCHOOLS.

It is gratifying to be able to report a decided advance on the part of the senior schools, an advance more pronounced and more encouraging than has perhaps been witnessed in any previous year of their history. The fine spirit which has always existed, and which was so carefully fostered by Mr. Legge, only needed some encouraging financial assistance to express itself in a practical way. The new aid grant referred to in the previous report supplied the necessary stimulus, with the result that considerable improvements in buildings, equipment, and personnel of the various staffs were at once initiated by the majority of the Managers in England, and, perhaps more important than all, an increased amount of attention has been devoted to disposal and after-supervision.

It would seem, indeed, that after 50 years of slow, if steady, development, the English Reformatories suddenly roused themselves as a giant refreshed to enter on a new and more vigorous lease of life. The group of schools in and near the Midlands—more than one of them associated with honoured names of the past—seem bent on raising the standard of achievement beyond anything that was ever thought possible; other schools which had begun to think themselves perfect have had to look to their laurels, and the day is probably not far distant when even the very best Industrial Schools will have to do likewise. Not the least gratifying feature of this general awakening has been the remarkable advance of two of the Roman Catholic Schools—Market Weighton and St. John's, Walthamstow. As regards

the ships, the "Cornwall" has taken full advantage of the convenient strip of land abreast the vessel, while the "Akbar," which had to be abandoned early in the winter, will soon be replaced by a fine shore nautical school on a capital site overlooking the Dee, and not far from the spot where the boys are at present temporarily housed. A few of the schools, including the North-Eastern (now styled the Netherton Training School), displayed a readiness to effect improvements without extra assistance, and thus indirectly benefited the schools which for the time being were in greater need than themselves. The Hants Reformatory alone disregarded the call to new life, and is retiring from the scene as though its task were completed, when, as a matter of fact, its services were never more needed than now. Although the admissions during 1907 were slightly less than in 1906, there was evident before the close of the year a decided tendency to increase, and this tendency still continues. In order to find room for the additional numbers the smaller schools are being encouraged to extend their accommodation.

In referring to the improvements effected during the year the schools for girls must not be overlooked. The two in Liverpool and the one at Sunderland made good use of the money granted to them, the one at Kenilworth received timely assistance during the difficult and trying period of filling up, and it is hoped that the school at Ipswich will be enabled ere long to make a fresh start in buildings more worthy of the excellent work it has lately been accomplishing.

The number of Reformatory Schools at the end of 1907 was 44, viz., 37 in England and 7 in Scotland, with juveniles under detention as in the following table :—

	Boys.		Girls.	
	Number of Schools.	Under Detention.	Number of Schools.	Under Detention.
England—Protestant	24	3,430	7	377
Roman Catholic ...	4	786	2	143
Scotland—Protestant	4	472	2	95
Roman Catholic ...	1	259	—	—
Total	33	4,947	11	615
Including—On licence	—	855	—	43
In prison	—	1	—	—
Absconded	—	34	—	3
Total	—	890	—	46
And actually in the schools...	—	4,057	—	569

The number of boys actually in the schools at the end of the previous year was 9 less, whilst that of the girls was 5 less, viz., 564.

The ADMISSIONS to Reformatory Schools in 1907 were 1,453, viz., 1,289 boys and 164 girls, showing a decrease of 9 boys and 7 girls as compared with 1906. Particulars as to ages, previous convictions of the young offenders, and their distribution to English or Scottish, Protestant or Roman Catholic Schools will be found in Appendix III. (A and B), pages 40 to 45. In England 1,246 of the young offenders were dealt with summarily, and 9 by Quarter Sessions or Assize Courts.

Of 1,255 admitted to English Reformatories in 1907, 26 had lost both parents, 14 had been deserted, and 36 were illegitimate as far as was known.

Inquiries and proceedings were taken in 1,254 cases, with the result that in 861 cases the parents were placed under contribution.

Of 198 admitted into Scottish Reformatories in 1907, 5 had lost both parents, 2 had been deserted, and 11 were known to be illegitimate. In 80 cases the parents had been placed under contribution.

The DISCHARGES from Reformatory Schools in 1907, deducting transfers, amounted to 1,194 boys and 137 girls; total, 1,331.

	Boys.	Girls.	Total.
To employment or service	526	94	620
Placed out through relatives	305	37	342
Emigrated	51	1	52
Sent to sea	146	—	146
Enlisted	115	—	115
Discharged from disease	18	—	18
Discharged as incorrigible	—	1	1
Died	12	2	14
Absconded, not recovered	21	2	23
Total	1,194	137	1,331

The TOTAL ADMISSIONS to Reformatory Schools to December 31, 1907, amounted to 76,455, viz., 64,031 boys and 12,424 girls.

The TOTAL DISCHARGES to the same date, exclusive of transfers, were 70,890, viz., 59,081 boys and 11,809 girls.

The RESULTS for the years 1904, 1905, and 1906 were as follows :—

Number placed out in the three years was 4,053, viz., 3,573 boys and 480 girls.

Of these 77 had died, viz., 66 boys and 11 girls, leaving 3,507 boys and 469 girls to be reported on.

Of the boys—

2,735 or about 78 per cent. were in regular employment,
158 „ 4 „ were in casual employment,
439 „ 13 „ had been convicted,
175 „ 5 „ were unknown.

Of the girls—

384 or about 82 per cent. were in regular employment,
28 „ 6 „ were in casual employment,
17 „ 4 „ had been convicted,
40 „ 8 „ were unknown,

giving an approximate percentage in fuller detail as below* :—

—	In regular employment.	In casual employment.	Convicted.	Unknown.
ENGLISH SCHOOLS:				
Protestant ... ... Boys	79	5	12	4
„ ... ... Girls	80	5	4	11
Roman Catholic ... ... Boys	76	6	10	8
„ ... ... Girls	90	3	3	4
SCOTCH SCHOOLS:				
Protestant ... ... Boys	81	3	14	2
„ ... ... Girls	73	17	4	6
Roman Catholic ... ... Boys	62	3	28	7
„ ... ... Girls	—	—	—	—

The Returns received from the schools, and on which the above figures are based, are carefully scrutinised and amongst other checks on their accuracy, independent reports are received from the various prisons as to offenders who are recognised as having previously been in Reformatory Schools.

The number so identified in 1907 was 862 (40 less than in 1906); 617 (599 males, 18 females) in English and Welsh prisons, and 245 (243 males and 2 females) in Scottish prisons.

The JUDICIAL STATISTICS have from time to time supplied the figures given in the following table.

* For further detail on the subject of these tables, and the disposal of ex-inmates of the schools, reference may be made to the section of this Report dealing with the question of disposal. (*See* page 31, and Appendix III. (D), pages 48—53.)

TABLE showing NUMBER of ADULT and JUVENILE COMMITMENTS for certain years since 1861.

Year	England and Wales.		Scotland.	
	Adults.	Juveniles.	Adults.	Juveniles.
1861	103,343	8,801	17,366	1,212
1870	147,225	9,998	27,646	1,204
1880	160,684	5,579	49,575	1,188
1890	150,780	3,872	47,834	755
1900	144,964*	1,353*	57,013	321
1904	197,192*	1,203*	54,184	206
1905	195,123*	1,045*	54,859	282
1906	182,658*	1,115*	57,645	303

* Convicted prisoners only.

The RECEIPTS and EXPENDITURE for Reformatory Schools were as follows :—

RECEIPTS.

	England. £	s.	d.	Scotland. £	s.	d.
Treasury allowance	62,156	12	7	11,075	1	3
Payments from County and Borough rates	28,989	2	11	4,689	7	2
Subscriptions, legacies, &c. ...	4,817	18	5	88	3	6
Payments from voluntary associations.	252	19	11	21	15	6
Sundries. Interest on Investments, &c.	3,099	18	4	460	5	5
Profit on industrial departments, including hire of labour— England ...3,447*l.* 3*s.* 8*d.* Scotland ... 572*l.* 0*s.* 7*d.*	9,083	13	6	1,408	14	4
Total ...	£108,400	5	8	17,743	7	2

EXPENDITURE.

Officers' salaries and rations ...	25,487	7	7	4,010	19	4
Food of inmates	24,845	17	4	4,260	9	10
Clothing do.	12,049	1	4	2,518	2	8
Rent of school premises and interest.	2,345	6	7	262	4	9
Disposal on discharge	3,906	14	9	553	18	8
Loss on industrial departments	523	10	5	—		
Building and Capital Account ...	10,604	18	1	1,203	0	0
Sundries, including furniture, rates, &c.	30,487	9	5	5,015	1	2
Total ...	£110,250	5	6	17,823	16	5

The AMOUNTS received from parents of juvenile offenders in Reformatory Schools for 1907 were—

	£	s.	d.
England and Wales ...	7,530	19	4
Scotland	533	17	4
Total	£8,064	16	8

The average cost of maintenance, including rent and expenses on disposal, and allowing the usual set-off for the profits of the labour of the inmates, was—

For Boys' Reformatories in England, 22*l.* 13*s.* 11*d.*, and in Scotland, 22*l.* 2*s.* 1*d.*

For Girls' Reformatories in England, 22*l.* 13*s.* 3*d.*, and in Scotland, 21*l.* 14*s.*

INDUSTRIAL SCHOOLS.

Special acknowledgment is also due to the various managers and staffs of the Industrial Schools, who, without any additional aid grant, have, nevertheless, striven to maintain, and where possible to improve, the standard of efficiency already reached. Many of the schools have passed through a trying period owing to the dearth of admissions, and consequent shrinkage of income. The useful school at Macclesfield has managed to weather the storm, and it is hoped that those at Birkenhead and Stockport may be equally fortunate. The school at Chester, after an interesting history, is closing this year, and a better chance will thus be afforded the other schools in the same county. A few schools have through force of circumstances been obliged to receive Poor Law cases in order to keep fairly full, while others, like the admirable school at Buxton, near Norwich, have had to carry on at a great loss. Nor have the schools under voluntary management been the only sufferers. The Cumberland County Industrial School, which in other respects was never more efficient than now, is becoming a source of anxiety to the Council on account of the decline in the number of admissions. It is probable, though, that none of these schools will have to wait much longer for a full supply of boys, and in the meantime it only remains for them to keep as efficient as they can in the circumstances.

The chief figures with regard to the Industrial Schools are as follows :—

There were on 31st December, 1907, 133 Industrial Schools in operation, 102 in England and Wales and 31 in Scotland.*

They were distributed as follows :—

England.—Boys, Protestant 49, Roman Catholic 13, Jewish 1.
Girls, Protestant 27, Roman Catholic 9, Jewish 1.
Boys and Girls, Protestant 2.

* These figures are the same as for the previous year, the little school for girls at Plainmellor, near Haltwhistle, which closed during the year, being balanced by the certifying as an Industrial School of the Sandwell Hall School (near Birmingham) for mentally defective children.

Scotland.—Boys, Protestant 13, Roman Catholic 3.
Girls, Protestant 11, Roman Catholic 3.
Boys and Girls, Protestant 1.

The NUMBERS of children under detention in the schools on December 31, 1907, were—boys 12,542, girls 4,369 ; total, 16,911 ; viz. :—

England.—Boys, Protestant 6,895, Roman Catholic 2,363, Jewish 62.
Girls, Protestant 1,876, Roman Catholic 1,043, Jewish 16.
Scotland.—Boys, Protestant 2,618, Roman Catholic 604.
Girls, Protestant 907, Roman Catholic 527.

Of these there were—

——	Boys.	Girls.	Total.
On licence	677	349	1,026
Absconded and not recovered	20	5	25
In Working Homes	137	1	138

Total number in the schools, viz., 11,708 boys and 4,014 girls, 15,722 ; showing an increase of 11 boys and of 57 girls as compared with the previous year.

The numbers retained in the schools waiting situations after the expiration of term were 15 boys and 6 girls ; total, 21.

The ADMISSIONS to Industrial Schools in 1907, deducting transfers, were—boys 2,853, girls 860 ; total, 3,713.

Distributed as follows :—

England.—
Boys, Protestant 1,590, Roman Catholic 543, Jewish 20.
Girls, Protestant 381, Roman Catholic 204, Jewish 8.

Scotland.—
Boys, Protestant 591, Roman Catholic 109.
Girls, Protestant 165, Roman Catholic 102.

These numbers show a decrease of 24 boys and of 30 girls on those of 1906, the number of admissions for that year being 3,767.

AGES on admission were—

——	Boys.	Girls.	Total.
Under 6	62	57	119
From 6 to 8	164	123	287
„ 8 „ 10	486	173	659
„ 10 „ 12	1,072	258	1,330
„ 12 „ 14	1,069	249	1,318
Total	2,853	860	3,713

At the time of committal FAMILY CIRCUMSTANCES were given in the following cases—

——	Boys.	Girls.	Total.
Illegitimate	193	58	251
Both parents dead	67	17	84
Father dead	420	140	560
Mother dead	391	135	526
Deserted by both parents	159	92	251
One or both parents destitute or criminal	206	157	363
	1,436	599	2,035

The DISCHARGES from Industrial Schools in 1907 were—boys 2,803, girls 736 ; total, 3,539 ; showing a decrease of 115 boys and of 73 girls compared with the previous year.

They were distributed as follows :—

——	Boys.	Girls.	Total.
To employment or service	1,289	597	1,886
Placed out through friends	544	68	612
Emigrated	189	35	224
Sent to sea...	448	—	448
Enlisted	236	—	236
Discharged from disease	27	13	40
Committed to Reformatories	18	6	24
Died	40	16	56
Absconded, not recovered	12	1	13
Total	2,803	736	3,539

The TOTAL ADMISSIONS to Industrial Schools (excluding transfers) up to December 31, 1907, were—120,955 boys and 32,938 girls ; total, 153,893.

The TOTAL DISCHARGES to the same date (excluding transfers) were—boys 108,398, girls 28,563 ; total, 136,961.

The RESULTS of Industrial Schools, as tested by the proportions in regular employment, in casual employment, convicted, and unknown, of those discharged in 1904, 1905, and 1906, were as follows :—

The total discharged in those three years, omitting deaths, transfers, and committals to Reformatory Schools, was 11,414, viz., boys 8,909 and girls 2,505.

Of the 8,909 boys, 118 had since died, leaving 8,791 to be reported on : of these—

7,547 or about 86 per cent. were in regular employment,
415 „ 4·7 „ in casual employment,
419 „ 4·7 „ convicted or re-committed,
410 „ 4·6 „ unknown.

Of the 2,505 girls, 50 had since died, leaving 2,455 to be reported on : of these—

2,180 or about 89 per cent. were in regular employment,
112 „ 4 „ in casual employment,
21 „ 1 „ convicted or re-committed,
142 „ 6 „ unknown,

giving an approximate percentage in fuller detail as below—

—	In regular employment.	In casual employment.	Convicted.	Unknown.
English Schools :				
Protestant ... Boys	86	5	4	5
„ ... Girls	87	6	1	6
Roman Catholic Boys	84	6	3	7
„ ... Girls	93	2	—	5
Scotch Schools :				
Protestant ... Boys	87	3	6	4
„ ... Girls	84	6	1	9
Roman Catholic Boys	80	7	8	5
„ Girls	97	2	—	1

For Industrial Schools the financial returns show the following results :—

The average cost of maintenance, including rent and disposal expenses, and allowing for the profits of the industrial departments, which were chiefly from farming and hire of labour, or from the indoor trades, such as tailoring and shoemaking, brushmaking, carpentry, firewood cutting, &c., was as follows :—

	£	s.	d.
In mixed schools for boys and girls :—			
England	22	10	2
Scotland	17	12	5
In schools for boys only :—			
England	24	2	2
Scotland	17	18	4
In schools for girls only :—			
England	21	8	4
Scotland	17	17	11
In Industrial training ships :—			
England	23	3	9
Scotland	21	9	8

The amounts recovered from parents, and in Scotland from parents and parochial boards, during the year, were—

	£	*s.*	*d.*
England and Wales ...	16,106	0	1
Scotland	5,555	10	6
	£21,661	10	7

The RECEIPTS and EXPENDITURE for Industrial Schools excluding Truant Schools, were as follows :—

RECEIPTS.

	ENGLAND.			SCOTLAND.		
	£	*s.*	*d.*	£	*s.*	*d.*
Treasury allowance	118,346	17	6	53,055	0	6
Payments from County and Borough rates.	76,562	8	2	13,540	19	3*
Payments from education authorities, &c.	67,653	16	1	1,168	4	4†
Payments from parochial authorities.	6,793	14	5	273	1	7
Subscriptions, legacies, &c. ...	25,237	9	9	32,997	3	0
Payments for voluntary inmates	3,790	17	3	398	16	9
Sundries	6,641	14	8	5,458	2	6
Profits from industrial departments, including hire of labour— England...3,753*l.* 6*s.* 5*d.* Scotland...1,782*l.* 19*s.* 3*d.*	17,756	4	11	4,350	14	7
Total income ...	£322,783	2	9	111,242	2	6

EXPENDITURE.

Salaries	79,361	4	6	21,386	13	6
Food	76,012	7	5	24,183	15	6
Clothing...	36,251	13	2	10,983	16	4
Rent	5,922	3	2	2,299	15	2
Disposal on discharge	12,910	11	11	2,458	10	3
Building and Capital Account	12,319	15	6	3,479	15	10
Loss on Industrial Department...	514	3	4	129	7	9
Sundries, including furniture, rates, &c.	95,345	11	5	24,378	7	4
Total expenditure ...	£318,637	10	5	89,300	1	8

* Including £10,962 12*s.* 6*d.* from the Glasgow Juvenile Delinquency Board.

† Including nearly £350 from English Education Authorities.

Truant Schools.

As implied in the previous report this title becomes more misleading every year. It is true that nearly all the inmates have been dealt with under the Education Acts, but on the other hand it is more than probable that the majority really come within the scope of the Industrial Schools Act, as there is often very little difference between their character and home circumstances and those of the boys in the ordinary Industrial Schools. At the same time it continues to be advisable to have a distinctive title for a class of school where the managers aim at early licensing and seldom detain a boy beyond 14 years of age, even though the order of detention may fix the limit at sixteen. The Education Authorities, however, who manage these schools are experiencing greater difficulty in respect of early licensing than formerly and either have to keep the boy beyond the usual term or send him out with the certainty of having him returned again and again till his fourteenth birthday arrives and the responsibility of the attendance officer with regard to him is at an end. The average length of detention is probably at least double what it was 20 years ago, and the number of boys for whom the managers are still responsible up to fourteen has relatively increased. Having regard to this fact and that the managers are in many cases disposing of the boys from Truant Schools to outside employment, the time would seem to have arrived for returns as to character and circumstances during the three years subsequent to discharge being furnished in the same way as for children from the ordinary Industrial Schools. It is proposed, therefore, to make a beginning in the next report by printing a table of results compiled from returns, which it is hoped will be supplied by the managers of Truant Schools, giving as far as is known the present character and circumstances of boys finally discharged in 1907. As no such returns have been called for before, it would hardly be fair to go further back than one year as a commencement; but it is hoped that in course of time the tables will be such as to supply the means for a comparison between the results obtained respectively by the two classes of Industrial Schools, and in any case it will be both interesting and instructive to gain some definite information as to the value of the work accomplished by the short-term schools. Some of them, there is every reason to believe, will show to advantage, but on the other hand it is more than likely that several schools will have a large percentage of unknowns, at any rate at first. So far the only comparison drawn has been with regard to the proportion of re-admissions, which from many points of view is open to objection.

In the first place the re-admissions have not, as might be supposed by the uninformed, included all those who have returned. A boy sent by the magistrate to a Truant School for 3 or 6 months then released and again sent by the magistrate to the same

Truant School would be counted as a fresh case and not as a re-admission. Thus a school which has an undue number of such re-committals might appear on paper to be more successful than some other schools which are felt to be much better managed. Moreover, consequent undue anxiety to reduce the number of re-admissions was responsible for many of the repressive measures which militated against the real success of Truant Schools in the past, whatever the paper results may have appeared to show. It is believed, however, that a majority of the schools are doing a good deal more than securing regular attendance at the public elementary schools of a certain number of boys, viz., giving a genuine start in life to others who are most in need of such assistance.

The following table will give some idea of the number of cases which these schools have dealt with during the last 29 years :—

Schools.	Date of Certificate.	Total No. of Admissions.	In School Dec. 31st, 1907.	On Licence Dec. 31st, 1907.
Plymouth	March 7, 1882 ...	2,119	Closed in 1906.	
North London ...	May 10, 1884 ...	3,923	69	275
West Ham	May 19, 1885 ...	1,997	43	72
Swansea*	October 5, 1882...	1,172	—	—
South Wales	November 8, 1893	2,128	72	174
Cardiff and Barry ...	April 21, 1899 ...	1,540	119	274
Bristol	July 27, 1883 ...	2,419	Closed in 1907.	
Hightown	December 13, 1878	7,662	130	604
Upton House	October 8, 1878...	6,196	121	105
Highbury	March 12, 1891 ...	5,107	161	148
Holme Court	May 15, 1891 ...	1,686	59	94
Midland (Lichfield) ...	December 28, 1893	2,098	86	85
Purley Lodge	October 13, 1882	1,186	Closed in 1905.	
Hull	July 1, 1884 ...	2,726	45	187
Sheffield	March 5, 1879 ...	2,844	71	272
Glasgow	June 27, 1905 ...	684	149	278

* Converted into an ordinary Industrial School in 1901.

The ADMISSIONS to Truant Schools in 1907 were 1,368 boys, a decrease of 162 compared with 1906.

The DISCHARGES were 1,479 boys, a decrease of 22 compared with 1906.

The NUMBERS actually in the schools on the 31st December, 1907, were 1,125, with 2,568 on licence.

The AVERAGE COST per head for maintenance, allowing for profit or loss of the industrial departments, was 27*l.* 8*s.* 4*d.* The total expenditure was 31,148*l.* 16*s.* 6*d.*, towards which the Treasury contributed 7,093*l.* 10*s.* 5*d.* and the Education and other Local Authorities 24,045*l.* 17*s.* 1*d.*

The TOTAL ADMISSIONS to the 31st December, 1907, omitting Swansea, were 44,315, of whom 22,827 had been licensed

and not re-admitted, 11,239 licensed and once re-admitted, and 8,900 had been re-admitted twice or oftener.

The average length of detention was about 18 weeks 4 days in cases of first admission, 25 weeks 4 days in those of first re-admission, and 32 weeks 2 days in those of second re-admission, showing an increase respectively of 5 days, 2 weeks 1 day, and 3 weeks 1 day, compared with the previous year.

Day Industrial Schools.

Notwithstanding the closing of one at Blackburn, these schools may, as a whole, be said to have experienced a more than usual amount of encouragement during 1907. A fine school was opened towards the end of the year by the Liverpool Education Authority to replace the old Kirkdale School, while progress was made with the building of a still finer one in Northumberland Street,* Liverpool, to replace the famous, but inconveniently crowded, South Corporation School, the first school of the kind to be certified, and one which has been marked by some of the noblest work which it is possible to conceive.

Liverpool, indeed, was the cradle of the Day Industrial School system, and it is matter for congratulation that in such an important centre so large a measure of encouragement should continue to be forthcoming after the lapse of 30 years. Fine buildings do not necessarily mean fine schools, but that they will do so in Liverpool there is every reason to believe, as an increasing amount of attention is being paid not only to the health and physical development of the children, but to that kind of training and education which is most calculated to raise them from the gutter to that state of life which Providence intended them to occupy and which it is manifestly to the interest of the community that they should occupy. All who believe in the ultimate success of Day Industrial Schools will therefore look to Liverpool to vindicate the faith that is in them, and will probably not look in vain.

Scarcely less gratifying has been the evidence of continued belief in this class of school in the great city of Glasgow, where the Juvenile Delinquency Board has for nearly 30 years been setting an example to the rest of Scotland. The Board contemplate opening another Day Industrial School in a quarter of the city where one is needed, and the plans have recently been approved by the Secretary for Scotland. But the outstanding, because most gratifying, feature has been the sympathetic and helpful attitude of the Glasgow School Board, who, with the concurrence of the Delinquency Board, decided to open a Day Industrial School† of its own, not in opposition to, but to supplement, the existing schools. There have not been wanting other indications of the willingness, not to say anxiety, of the

* This model day industrial school was opened early in the present year.

† The Govan Street Day Industrial School, certified August, 1908.

Glasgow School Board to assist in every possible way in the carrying on of the good work assigned to the Delinquency Board, and thanks to this public spirit, which it is hoped may be assisted by legislation, the outlook in the most populous centre of Scotland is decidedly encouraging. Many of the smaller towns of Scotland, however, naturally look to Edinburgh as their model, and in regard to them there is ground for hope in the fact that in the capital there is a growing interest in the School Board's Day Industrial School, and a diminishing reluctance on the part of the local authorities generally to contribute towards the maintenance of children sent to certified schools.

The day, indeed, may not be far distant when it will be realised in Scotland that the Day Industrial School is just the class of school which is most needed in even the smaller urban centres, and that many of the residential Industrial Schools have to contend against most of the difficulties and dangers of the Day Schools, such as proximity of the children to their homes and constant contact with old associations, without having their compensating advantages, which include less risk of undermining the sense of parental responsibility.

The numbers attending the Day Industrial Schools were showing a tendency at the end of 1907, very marked as regards the girls, to increase in Scotland, but to diminish, as regards the boys, in England.

There were at the close of 1907, 20 * Day Industrial Schools under inspection, of which 15 * were in England and 5 in Scotland, 4 of the latter being in Glasgow (under a special Act) and one in Edinburgh.

The numbers of children attending Day Industrial Schools on 31st December, 1907, were :—

Boys, 1,951 (being 153 less than at the end of 1906).
Girls, 1,232 (being 52 more than at the end of 1906).

Total, 3,183 (being 101 less than at the end of 1906).
and 112 boys and 109 girls were on licence.

The ADMISSIONS to Day Industrial Schools in 1907 were :—

Boys, 1,310 (87 more than in 1906).
Girls, 854 (110 more than in 1906).

Total, 2,164 (197 more than in 1906).

The DISCHARGES were :—

Boys, 1,482 (113 more than in 1906).
Girls, 789 (161 more than in 1906).

Total, 2,271 (274 more than in 1906).

* One less than at the end of 1906, the School at Blackburn having closed during the year.

The total receipts, including 163*l.* 17*s.* 4*d.* profit in industrial departments, were 37,416*l.* 15*s.* 3*d.*, towards which the Treasury contributed 7,721*l.* 8*s.* 3*d.*, education and other local authorities 26,195*l.* 11*s.* 8*d.*, parents 2,736*l.* 5*s.* 5*d.*, parochial authorities on behalf of parents 391*l.* 17*s.* 0*d.*

The total expenditure, including 449*l.* 19*s.* 0*d.* for building and capital account and loss of 299*l.* 4*s.* 2*d.* in industrial departments, was 37,451*l.* 3*s.* 10*d.*

The average cost per head was 12*l.* 8*s.* 8*d.*; and for food 3*l.* 4*s.* 8*d.*

Education and Industrial Training.

The first word of this heading should suffice of itself, for education in Reformatory and Industrial Schools has always included a certain amount of industrial training. In the country generally, however, the term Education has for so long meant mere schooling that to omit the words Industrial Training may lead to misunderstanding, until such time as it is universally recognised that education of human beings includes the development of the power of the hand as being no less important than that of the brain, to enable them to earn their daily bread. In certain classes of the community, and especially the classes to which our Reformatory and Industrial School children belong, the head is, indeed, subsidiary to the hand, and the training of the brain can only be made interesting and useful by assisting in the more intelligent employment of the latter. This does not mean that in the Certified Schools the three R's and other school subjects need be taught less earnestly and less successfully than elsewhere, but on the contrary that the teachers will be both more earnest and more successful for having industrial and domestic occupations immediately at hand. There is hardly a subject taught in the schoolroom which should not be of service in the industrial departments, and the teacher in a Certified School has this great advantage, viz., that he or she need not wait till the child is finally launched into the work-day world to see whether the method of teaching is on serviceable lines. Employers of young people should be more reliable critics of the value of school instruction than the most capable inspectors, and if only the unbiassed opinions of a large number of employers could be accumulated, a far better idea as to the relative efficiency of the various schools would be obtained than from the most elaborate reports of school examiners. The superintendent of a Certified School is, to a certain extent, in the position of an employer, and can, if he will, with the assistance of his foremen, the trade instructors, test in the workshop the practical value of the schoolroom instruction. For what is the use of a boy learning drawing in the schoolroom if he is found to be useless with the pencil or chalk in the workshop, or arithmetic if he cannot calculate prices and quantities, or composition if he cannot express himself properly in his notes? It would, indeed, seem that the best test as to the practical value of the school-

master's work is that which can be applied in the workshop, or, in fact, almost anywhere but in the schoolroom itself, and certainly no report on the schoolroom work should leave out of account the services it is rendering in other departments of the institution. Provided, therefore, the industrial training is of the right kind, viz., both practical and theoretical, and includes the application of drawing, the keeping of accounts, and taking down notes, the industrial side of the School will afford the surest index as to the educational value of its curriculum and the method of instruction.

During 1907 Mr. Pearson paid special attention to the Industrial Training in Boys' Schools. He visited the Schools without notice, tested the schoolroom drawing and the manual instruction classes, and devoted considerable time to the trade shops, examining the boys, advising and stimulating the instructors and enlisting the co-operation of the superintendents and schoolmasters in rendering the instruction more effective. These valuable visits are being continued this year, and already Mr. Pearson is able to report that industrial training has made striking advance, both in the senior and junior schools. The following extracts from his report will give some idea of the nature and scope of the work.

INDUSTRIAL TRAINING.

For a number of years past attention has been directed towards securing the combination of technical instruction with the purely manual operations involved in the various industries, and the initial efforts made in this direction consisted mainly in influencing the trade-instructors to give, at stated times, talks to their boys, as a class, on outstanding topics connected with their trades. They were also required to keep records of such talks.

This was a small and tentative beginning. It was inevitable that the beginning *should* be tentative. It had to be remembered that the instructors were, with few exceptions, drawn from the class of journeymen tradesmen, who had had few opportunities of gaining facility of expression, whether by pen or speech, were acutely conscious of these limitations, and often nervous as to their ability to do more than show their boys how to do the manual part of their work.

These early talks served a useful and necessary purpose. The instructors' tongues were loosened, they learned to appreciate the gain in time and effect of being able to say to the whole class much that would otherwise require to be said separately to each individual boy; they realised a greater comprehension of their own knowledge of their trade; they made endeavour to widen that knowledge, and consulted text-books, visited libraries and even joined technical classes. They found the position of trade instructor to be a higher one than that of journeyman worker.

By few schools, however, was there yet much attempt to really organise technical instruction; and so, during the past year, special efforts have been directed towards developing the faculty of organisation on the part of the instructors.

These efforts have met with far greater success than could have been anticipated. In respect of all the formal industries, and in almost every boys' school, regular syllabuses of theoretical instruction have been compiled, the initial drafts having been made by the instructors, and then supervised by the superintendents. Many of these syllabuses have

proved to be remarkably fine productions, and have revealed a wealth of power unsuspected before, and which has placed the whole work of trade instruction upon a higher plane. Taking the schools in the mass there are now to be found first-rate syllabuses on agriculture, horticulture, woodworking, metal-working, tailoring, shoemaking, baking, printing, &c., &c. The belief that there would accrue a great gain of power by causing the syllabuses to be constructed in the schools themselves has been amply justified. Possibly, in the near future, there may be abstracted from these syllabuses the best points of all, and there may be placed in the hands of the school authorities standard syllabuses of technical instruction in each department of industrial work.

Among the industrial occupations agriculture and horticulture are rapidly coming to the front. This is as it should be. There are no forms of industry that offer wider, or more certain, opportunities to these boys after leaving school. The master gardeners have, as a rule, been among the most diffident of any instructors in attempting schemes of organised technical instruction ; but when once the effort has been made no class of instructors has shown greater grasp or produced better results, whether judged by the actual knowledge of the boys, or keenness for their work. In horticulture Stranraer produced the first scheme and Desford the finest.

In farming, the higher operations such as thatching, hedging and ploughing are receiving increasing attention. It is not now considered sufficient that these things should be done at a school, or that boys should see them done, or help in a minor way, but that they should *actually do them.* It is heartening to see the manner of a boy at the Netherton School in managing, single-handed, a pair of horses and a plough ; and that was an illuminating incident at Weston, where a boy who could thatch having been emigrated to Canada, the superintendent received within three or four months from the boy's employer a request for two more boys "like the other one." The success with which boys have been hired out to farmers from Netherton goes to show how British farmers, too, are likely to value boys who have been capably trained.

The newly-aroused French gardening system is receiving attention, and Stoke Farm is leading the way. This system may, or may not, be commercially good for any individual school ; but experiment with it, in however small a way, as a medium of tuition to the boys must surely be good.

In March last several schools entered boys for the Royal Horticultural Society's newly-instituted "junior" examination Of 82 candidates 64 gained certificates. Pride of place, in the form of a first-class certificate, fell to Castle Howard. There were 22 "seconds" and 41 "thirds." In focussing the instruction given in the schools this examination was valuable, and it is hoped that increasing numbers will be entered for subsequent tests of the same kind.

During the past two or three years metal-working has been steadily coming to the fore, not so much, perhaps, as regards the number of schools that have adopted the subject as in the striking progress that has been made in the individual schools where it is being taken. Among the Reformatories, Redhill, Netherton, Liverpool Farm, Birkdale Farm and St. John's (Walthamstow) are metal-workers, and among the Industrial Schools are Harborne, Ardwick Green, St. Joseph's (Manchester), St. George's (Liverpool), Grafton Street, Dartford, Feltham and "The Mars" ; while in a small way Bishop Brown Cumberland, "The Wellesley," East London and Mossbank are touching the subject. Some of the latter, at any rate, might extend the work at once, and all schools not yet taking it might well give the matter consideration having regard to the fact that we are eminently a metal-working nation.

Among the major lists above it is difficult to name the best. None show greater range than Redhill, none better taste than St. John's; none show greater precision than Harborne and St. Joseph's, none are more useful than Liverpool Farm, or more practical than Netherton. It may be predicted that there will be a keen and wholesome struggle for supremacy in the immediate future, from the results of which all will benefit.

Almost every boys' school now takes woodworking, and it is gratifying to note the increasing expertness of the instructors, and the correspondingly improved quality of workmanship shown by the boys. The main points to which schools require to pay attention now are,—the production of first quality drawings, correct use of the tools, and the cultivation of self-reliant working on the part of the boys.

Schoolroom drawing is in better form than it ever was, and it is satisfactory to find greater prominence being given to mechanical drawing. Too high a standard of precision can hardly be adopted, nor too great expertness aimed at in the use of instruments. All the trade-shops in which drawing plays a part are dependent to a considerable degree upon the quality of the teaching of the drawing in the schoolroom. The subject is not taken in these schools as a mere accomplishment, and there is everything to gain if the schoolroom staff ever bear in mind that they are training their boys in the "language of the workshop." The industrial world has room for good draughtsmen. The superintendent (a lady) of one of the smaller northern schools obtained a berth for a boy as messenger in the draughtsman's department of one of the most famous of engineering works. In a short while the manager of the department discovered that the boy could draw, and voluntarily offered him a seat in the drawing office. One instance such as this should persuade every teacher as to the value of good work in the teaching of drawing.

Finally, the department's exhibit in the British Education Section of the Franco-British Exhibition merits a word in this report. As a record of achievement in almost all the departments of industrial activity in the schools, and as a stimulus for the future, it is equally valuable. Incidentally, not the least significant feature connected with this exhibit has been the warm expressions of approval made by educationists of the highest standing in the country, and entirely unconnected with the department. This would seem to show that the workers in these schools are not only training their own boys, but are assisting in the solution of certain problems of practical education incidental to classes of schools other than those in which they themselves are working.

With reference to the allusion above to the examination in horticulture, the report of the examiners is so much to the point, and reflects so faithfully the faults revealed by candidates who attempt to make cramming a short cut to success in an examination, that with the kind permission of the Society I venture to append verbatim the report of the examiners.

Royal Horticultural Society.

Juniors' Examination, Wednesday, 25th March, 1908. *Specially intended for Lads and Young Men.*

The first Annual Examination for lads and young men was held on 25th March, 1908, and conducted on similar lines to the General Examination.

Ninety-five candidates were entered for the examination of whom four have been placed in the first class, twenty-two in the

second class, and forty-seven in the third. Twenty-two failed to obtain sufficient marks to satisfy the examiners.

Speaking generally, we regret to say that the standard reached by the candidates was on the whole a very low one. Quite elementary questions are set at this examination, but it should be clearly understood by the candidates that a thorough knowledge of elementary facts is expected. In many cases it was only too evident that the candidates were insufficiently prepared for the examination, both in the way of having minds too little stored with the necessary elementary knowledge and also in the power of expressing what they knew upon paper. In other cases an attempt at preparation had been made, by learning by rote an account of certain processes, with the object of reproducing the account verbatim. The usual result followed this course, for where it had been adopted a great lack of intelligence was evident in the answers given, and since the question set was not exactly like the question to which the account, perhaps somewhat imperfectly committed to memory, applied, the answer often failed really to fit the question at all. Attempts at memorising answers in this way only lead to the stifling of all intelligent interest in the operations the candidate is called upon to perform in the garden, and to the perpetuation of those rule-of-thumb methods which block all progress, and, in altered circumstances, too often lead to disaster.

Another fault which calls for special mention is the failure on the part of many of the candidates to grasp the actual meaning of the question they were answering. Not one single question escaped this misunderstanding, although great care had been taken to make them very plain. Candidates should always very carefully read the question before attempting to answer it, so as to realise exactly what is asked.

Again, attention to every little detail is imperatively called for in the cultivation of every plant if success is to be deserved, and success cannot be obtained in any branch of gardening without this attention, yet in almost every paper the evidence of lack of attention to detail was very plainly to be seen.

Few candidates appeared to thoroughly appreciate the benefits of hoeing, and fewer still were aware of the action of lime on a heavy clay soil. The word "flower" was often, of course incorrectly, taken to mean "plant," and the question "to dig" or "not to dig" in connection with raspberries proved a pitfall to many. Considerable attention appears to have been paid to plant pests, but the word "blight" is still used to cover a multitude of things, where terms of more definite meaning might be better applied.

Candidates who have attained a low place in the examination or who have failed to pass should not be discouraged, but should endeavour to pay attention to, and observe, every little detail in the cultivation of the plants which are commonly grown in gardens, and to the form which the plants assume, and to the way in which they respond to the care that is bestowed upon

them. Only one candidate who attempted the question realised the difference between the tuber of the potato and the tuberous root of the dahlia, and yet, if only from a cultural point of view, knowledge such as this is of the utmost importance to any one who aspires to become a gardener.

FRED. J. CHITTENDEN, *Director.*
W. WILKS, *Secretary.*

As regards the Girls' Schools, similar visits have been paid to them by Mrs. Harrison, and a glance through the various reports published earlier in the year (pp. 180 to 235 of Part 1) will afford some idea of the ground that is covered, and the progress that is being made in the training of the girls to become useful and intelligent women.

It will be observed that where the report on the schoolroom work, generally tested by one of the senior inspectors, is satisfactory, Mrs. Harrison is able to report favourably of the industrial training. Where there is an exception it will mean that the instruction is still trammelled by schoolroom methods, that the teacher does all the talking, and the subject in the children's minds has no bearing on every-day life. With domestic subjects generally, as taught and practised in Certified Schools, Mrs. Harrison is well satisfied, and the demand for girls as domestic servants in better class households continues to grow. In fact, it would seem that homely institutions for girls are nowadays performing much the same service for domestic duties which, in the Middle Ages, the monasteries did for learning.

Experience has shown that girls thrive best in homely buildings, even if slightly inconvenient, provided they are sanitary. Fine institutional buildings fitted with every modern convenience and appliance are apt to deaden the domestic instinct, and, unless extraordinary care is taken in their training, to turn the girls out mere automata who are helpless in an ordinary household, and worse than useless in an emergency. Even some of the most enlightened education authorities fail, however, to realise this fact, and one of the most important of them has withheld the higher rate of grant from a school solely it would seem on account of the homely nature of the buildings, and yet the results obtained during a long series of years by this school have been as good as could well be desired.

PHYSICAL TRAINING AND RECREATION.

There is every reason to be satisfied with the progress maintained in this department of the Schools' activities, and the spirit in which the good work is carried on. Whether it is that the Schools are fortunate in their instructors, or that the latter appreciate the Schools, or that there is an abundance of good instructors throughout the country, certain it is that an inspector rarely leaves a school without having formed a very high opinion of the method adopted in conducting the free and applied exercises and the results accruing from them. The junior boys are often looked after in this respect by

the schoolmasters with excellent effect, and the ingenuity displayed in devising original exercises which are both attractive and beneficial to the youngsters is deserving of all praise, besides being in every way encouraging. The display recently given at the Franco-British Exhibition by the smaller boys of the East London Industrial School under the charge of Mr. Braid must have appealed to all who had the pleasure of witnessing it, as something worth coming a long way to see.

The various Athletic Associations have continued to do well, thanks to the self-denying labours of the Hon. Secretaries, the generous support of friends, and the cordial co-operation of the schools concerned. Many good lessons are learned, not the least valuable being self-restraint, and that it is better to lose fairly than to win unfairly. Small prizes were offered this year for the most sportsmanlike school in each of the several Associations. Where all are so good the voting was necessarily close, and it was evident that the winners in two or three of the Associations were run very close by several other schools. The exception was in the Western Association, where the Somerset Industrial School was an easy first. The other winners were as follows :—Northern, Macclesfield Industrial School ; Midland, Stoke Farm Reformatory ; Southern, " Cornwall " Reformatory Ship. While admitting that there are many schools which one would like to reward for their excellent conduct in all inter-school contests, it must be said that the four prize winners are included in the list, and are all of them schools which are distinguishing themselves in other directions—in short, " playing the game " in the highest meaning of the phrase.

The schools in the north-east corner of England and inconveniently situated for joining any of the Associations, compete amongst themselves in free and applied gymnastics for a cup kindly presented by Mrs. Legge. The little school at Middlesbrough has succeeded in winning the trophy two or three times in succession, though Mr. Walsh is now able to report that there is at least one other school running it very close.

Miniature rifle shooting continues to gain ground. Several additional schools, senior and junior, have improvised ranges during the year, and it will soon be quite exceptional for a Certified School to be without one. The Midland Association has arranged more than one inter-school competition, and therein set a good example to the other Associations. Saltley is at present the champion shooting school of the Midlands. This autumn, thanks to the courtesy of the Home Office swimming club there will be an opportunity of deciding which is the champion certified school of Great Britain at swimming.

Health.

On the following page is given the usual table showing the death-rate in the various classes of schools for the year under review. It will be seen that the general death-rate for 1907 was 3·28, appreciably lower than that for 1906, when it was 3·52 ; in fact, with the exception of that for the year 1903, when

TABLE showing the NUMBER of DEATHS and DISCHARGES on ACCOUNT of UNFITNESS for REFORMATORY or INDUSTRIAL TRAINING during the Year ended 31st December, 1907.

—	England.					Scotland.				
	Average No. of Inmates.	No. of Deaths.	Rate per 1,000.	Number Discharged Unfit for Training.	Rate per 1,000.	Average No. of Inmates.	No. of Deaths.	Rate per 1,000.	Number Discharged Unfit for Training.	Rate per 1,000.
Reformatory Schools:										
Boys, Protestant	2,827	8	2·83	15	5·31	392	—	—	1	2·55
Girls, Protestant	335	1	2·99	—	—	99	1	10·1	—	—
Boys, Roman Catholic ...	639	3	4·69	1	1·57	199	1	5·03	1	5·03
Girls, Roman Catholic ...	143	—	—	—	—	—	—	—	—	—
	3,944	12	3·04	16	4·06	690	2	2·9	2	2·9
Industrial Schools:										
Boys, Protestant	7,064	19	2·69	12	1·7	2,536	8	3·15	6	2·37
Girls, Protestant	1,863	4	2·15	7	3·76	848	3	3·54	1	1·18
Boys, Roman Catholic ...	2,227	11	4·49	3	1·35	544	2	3·68	5	9·19
Girls, Roman Catholic ...	1,116	8	7·17	1	·9	468	1	2·14	4	8·55
	12,342*	42	3·40	24*	1·94	4,396	14	3·19	16	3·64
England and Scotland combined:										
Reformatory	4,634	14	3·02	18	3·88					
Industrial	16,738*	56	3·35	40	2·39					
Total	21,372*	70	3·28	58	2·71					

* The figures relating to the Hayes and Stamford Hill Industrial Schools for Jewish children (see pages 66, 67, and 70, 71) are only included in the totals for Industrial Schools.

it was 3·20, the lowest hitherto recorded. The rate per 1,000 of children discharged on account of disease and as unfit for training is equally satisfactory, as indicating a determination on the part of the schools to keep the children as long as there is any hope of recovery. There will, however, it is feared, always be a number of cases where, in the interests of the rest of the children, recourse must be had to a hospital for consumptives. For mentally defective children of the Industrial School class such institutions as the recently certified Sandwell Hall School near Birmingham can be used. With regard to the afflicted juvenile offender, however, there is likely to be some difficulty, though it is evident that existing Reformatories will endeavour to reduce it to a minimum. Amongst the schools which have come to the rescue during the past 12 months, and not only received boys of whom the most sanguine superintendent might well have despaired, but have been able in a few months to forward reassuring reports as to pronounced improvement, may be mentioned Bedfordshire, Weston, and "Kerrison" Reformatories. Heroic action like this may mean incurring risks, but experience goes to show that schools which are ready to receive doubtful cases rarely have to record a death, or even a case of special discharge. Reference to Appendices VII. (A) and (B) (pp. 132–135), where the figures are given in greater detail, will show that no school has an abnormally high death-rate for the year. Those with the most deaths (three each) are "Cornwall" and Market Weighton. The former was unfortunate enough to lose two boys by accidental drowning, while of both that ship and the Market Weighton School it can safely be said that they were never in better order or better managed than now.

The general health throughout the schools during the year was again satisfactory, and though a few of them have had some cases of measles or scarlet fever, prompt and effective measures generally succeeded in preventing the spread of infection. The two exceptions, strange to say, were two of the best-managed schools, the Toxteth Park Reformatory for girls and the Sale Girls' Industrial School, which during the last month or so of 1907 and well into the present year had to battle against quite an epidemic of fever. Amongst the risks to which residential schools are exposed are the visits of the parents and friends of the children, and the importation of infection by a new case, despite a satisfactory medical certificate accompanying the child. Considering all things, it is wonderful that the schools escape as well as they do, but ordinary precautions and proper attention to ventilation of the rooms night and day, and to the diet and open-air exercise of the children generally succeed in reducing risks to a minimum.

Disposal and Results.

The years 1907–8 have been a bad period for employment in many parts of the country, causing more than usual difficulty in disposing of boys to good situations on leaving the schools, and

the general state of depression in the district of the Tyne has told its tale in the list of re-convictions. The school at Netherton has had the most to contend against in this regard or would undoubtedly have shown to much greater advantage in the returns. Few schools, indeed, have displayed greater energy and alertness during the last year or two in all that pertains to safe disposal and careful after-supervision than Netherton, and before long it will reap the reward of its labours. The most gratifying feature of the year has been the very general desire on the part of Reformatory managers to improve by every means in their power this important branch of their work, and whether they have adopted the suggestions of the Inspector or preferred their own way of doing things they deserve success, provided they are doing their best, as in the majority of cases they undoubtedly are.

The agency referred to in the previous report has been employed by a number of the boys' Reformatories in England, and appears to have given general satisfaction. It was not expected that the agency could do much, at any rate at first, in the way of finding employment; but in course of time it is hoped that it may give valuable help in this direction both directly and indirectly. It is too soon yet to expect any marked result from its efforts, but already there is a tendency to decrease in the percentage of unknowns, which has fallen in the case of English Reformatories for boys from five to four, while the percentage in regular employment has risen from 77 to 79. Undoubtedly this improvement in the general result has been partly effected by the more satisfactory returns furnished by individual schools employing the agency, but it is perhaps fairer to attribute it to the general awakening of which the employment of the agency is merely a symptom. Mr. Legge's memorandum of 1906 and the aid grant of 1907 have been the chief factors in this general awakening; one showed the way, the other supplied the means, and the two are all that is needed so long as the Reformatory spirit exists.

Although no boys' Reformatory on this occasion shows less than 4 per cent. of re-convictions, and none of them escaped having one or more of their ex-inmates sentenced to imprisonment during the year, the net figures show no falling-off, but on the contrary, as regards Roman Catholic schools in England and Scottish schools generally, there is a slight improvement. Slowly but surely the percentage of re-convictions for Market Weighton is coming down, and with St. John's (Walthamstow) below the average and Birkdale and Farnworth showing the lowest percentage for the year the Roman Catholic Reformatories of England appear to great advantage. Even Parkhead, the one Scottish school of this class, shows some improvement, and with the help of the aid grant may yet compare favourably with its English rivals. Of the Protestant Reformatories for boys only three show less than 8 per cent. of re-convictions, viz., Herts., Liverpool Farm and Kerrison. As regards the Scottish

schools, it is gratifying to see all of them except one (Kibble) showing improvement, although it must be admitted there is still room for more, as none yet shows less than 10 per cent. of re-convictions. If we turn to the Industrial Schools we find this rate, which must be regarded as high even for a Reformatory, debited to some of the junior schools. There are four English Industrial Schools with 10 per cent. and one with 9 per cent. Of these five institutions one is a ship and the other four are schools owned and managed by Local Authorities. As regards management, no one could honestly say that the Mt. Edgcumbe is in this respect inferior to other training ships, or Desford to other shore schools. Many people, including H.M. Inspectors, would, on the contrary, be inclined to place both schools very high in any list arranged in order of merit. It must be admitted that Local Authorities are not so successful in getting the best work out of a Superintendent as are Voluntary Managers; that they are more concerned about bricks and mortar, apple-pie order, and strict observance of the letter of the law, than about zeal and enthusiasm, and all that really makes for success. Their higher officials are fully occupied (save in very rare instances) with other matters than the rescue of the young; they themselves scarcely have time to meet all their responsibilities, or to mark the results of experiments. But Desford can hardly be said to have suffered in this respect, and the cause must be looked for elsewhere. One factor common to both of these well-managed institutions is the reception each year of a large number of boys between 12 and 14 years of age, whose antecedents would probably be found on full inquiry to compare anything but favourably with those of many a boy sent to a Reformatory and fated to have a conviction recorded against him all his natural life. To avert this fate, well-meaning people have caused fit subjects for Reformatories to be sent to Industrial Schools, regardless of the fact that such action is calculated to do more harm than good. It will be noted that schools which receive a large proportion of boys over 12 years of age find the utmost difficulty in keeping down the percentage of re-convictions to a low figure, *e.g.*, no ship shows less than 4 per cent., and all the shore schools which show more than 3 per cent. are conspicuous for having during recent years received a large proportion of senior boys; whereas those which show 3 per cent. or less are schools which have been receiving very few senior boys, and very few even of these from London. The inference is that boys of over 12 sent to Industrial Schools have rarely been benefited themselves, have often done harm to others, and in every case have made the work of the Industrial Schools more difficult and less successful than it was intended to be. Two wrongs do not make a right. If it be wrong to record a conviction against a child of 13, it is at least equally as wrong to send him to a school which was never intended for his class of case, where he will influence younger children harmfully before the school will have begun to influence

him beneficially, or where there will be rarely sufficient time to complete his cure. These remarks apply with equal, and possibly even greater, force to the case of the girls. The temptation to avert a conviction being recorded against a girl is naturally harder to resist, and many a girl has come to grief, who, if she had been sent to a Reformatory, might, and, judging by the excellent results produced by nearly every one of the Reformatory Schools for Girls, most probably would, have turned out well. Moreover, the results shewn by several of the junior schools would have been much better than has been the case, while those of the senior schools, good as they are, would not have suffered. Those Local Authorities and Managers who have adopted or advocated the sending of Reformatory cases to Industrial Schools can never have made a scientific study of after results, or they would never have been a party to landing some of the finest Industrial Schools in a position of comparing unfavourably as regards the results with schools which deal only with actual offenders.

Of all the Boys' Industrial Schools managed by Local Authorities, only three show to comparative advantage in the present return of results. Cumberland and Mayford with 2 per cent. and Leeds with 3 per cent. of convictions, and these will probably show still better results as the proportion of older admissions decreases. Amongst the schools which appear to special advantage are Boys' Home (Regent's Park) and Somerset, both under voluntary management—both receiving boys from London, but receiving them young, and in both, the Managers keep a watchful eye on results. The Local Authority which has uniformly pursued the wisest policy with regard to Industrial Schools, is Liverpool. To begin with, the Liverpool Education Authority never established an ordinary Industrial School of its own, and in its dealings with the schools under voluntary management, it has contrived to secure the maximum of benefit with the minimum of interference. It has left the inspection of the schools to the Central Authority; it was among the first to give an adequate contribution towards maintenance, and though it is now less lavish with its doles than some other authorities, can still be generous when occasion requires. The significant fact is that no school which receives boys to any extent from Liverpool, shows to a disadvantage in the return of results. In Liverpool there has always been cordial co-operation between the Education Authority and the Police, and no Local Authority has really done more to further the efficiency of the Industrial School system, because no authority has more clearly realised its limitations. Amongst the Industrial Schools which show a high rate of relapses, it is sad to see the little Dorset Industrial School figuring. Formerly, when under voluntary management, it was one of the most successful under inspection, and now, under the management of the County Council, it is debited with a percentage of convictions, which even when it was a Reformatory, would have brought a blush of shame to the cheek

of Mr. Mansel Pleydell. It is hoped that a determined effort will be made to save this interesting little school from becoming a comparative failure. The Girls' School in the same County, but under voluntary management, promises to become one of the most brilliant successes, and deserves to if only on account of the unobtrusive, but none the less, effective and beneficial influence brought to bear on the parents. The Liverpool Girls' Reformatory has not yet begun to show to advantage in the return of results, in fact, with 9 per cent. of reconvictions, appears in an even less favourable light than last year. It is probable that 80 is too great a number for a Girls' Reformatory to deal with successfully, and that the best results cannot be expected while the school has of necessity to remain so large.

As regards the present occupations of boys who left the Reformatory and Industrial Schools in the years 1904-6, a list of which is given on page 35, it will be seen by comparison with former lists of the same nature, that there is a slight tendency to decline in the number serving in the Army and Navy. Were this accompanied by a corresponding increase in the number in casual employment, it would be cause for unqualified regret. But fortunately this is not the case; on the contrary, casual labour shows even a greater drop (from 630 to 573) than the Army (from 1857 to 1810). It would appear therefore that the schools are experiencing more success in finding good civil employment for the boys, and that the latter are holding their own better in the skilled labour market. It is probable that many managers felt that to have much recourse to the Army argued a sort of failure and some lack of originality and enterprise. Such a view was more correct 10 years ago than it is now, when the Army offers such advantages to the promising recruit who has a trade and is fairly well educated.

The number of those in farm service continues to rise steadily, as does also that of gardeners. The number of the latter however is still too small, but there have not been wanting indications that we may shortly expect a gratifying amount of attention to gardening as one of the most valuable outlets for boys from both senior and junior certified schools, to the advantage not only of the boys themselves but the country generally. It is to Stoke Farm more than to any other school that this hopeful state of affairs is due and much may be expected from the sympathetic attitude of the Royal Horticultural Society. But for a really successful consummation schools situated like the Farm School at Redhill or the Kent County Industrial School at Ashford must be looked to. Both these schools have a grand opportunity in this direction. One as a senior school managed by the oldest body representing the voluntary interest and the other a no less distinguished junior school managed by a local authority, and a school moreover which perhaps more than any other under inspection has the best chance of illustrating the advantages of such management.

One gratifying increase is that with regard to the numbers serving in the mercantile marine, fishing and coasting services, from 934 to 961. Not a great increase, but considering the discouragements which certified schools have lately encountered it is gratifying not to have to show a decrease. As some indication of the permanency of sea service as a means of disposal the No. IV. Returns have been carefully examined with a view to seeing what proportion of the boys sent direct to sea in 1904 were still following that life at the end of 1907. No account has been taken of those boys who adopted a sea life after having tried some other occupation on shore, so that the following figures do not indicate the full contribution to the sea services. Of 666 boys sent to sea during the year 1904, 345 or 52 per cent. were known to be still at sea at the end of 1907. Of these 345, 60 were in the Royal Navy, 184 in the mercantile marine, and 101 were in the coasting and fishing trades.

OCCUPATIONS, BOYS.

Occupation.	No. at end of 1907.	Occupation.	No. at end of 1907.
Army :—		Mechanics	301
Including Band 679	1,810	Messengers and porters (including 112 errand boys)	315
Militia 28		Mill workers	90
Navy :—		Miners	629
Including Band 52	292	Ostlers	53
Royal Marines... 30		Packers and Warehousemen	80
Mercantile marine ...	961	Painters	72
Bakers	131	Printers	50
Blacksmiths	44	Railway workers	160
Bricklayers, masons, &c. ...	44	Scholars	52
Butchers	64	Shipbuilding	48
Carpenters, wheelwrights, &c.	178	Shoemakers	181
Carters	352	Shop assistants	228
Clerks	43	Tailors	161
Dairymen	42	Waiters	91
Factories, works, &c. :—		Other regular employment	194
Including glassworkers 37	414	Casual	573
Farm	1,567	Convicted	858
Fishermen	96	Dead	184
Footmen, page boys, &c. ...	121	Unknown	585
Gardeners	108		
Iron, steel, &c., workers ...	214		
Labourers :—			
Builders ... 78			
Dock 81			
Factories, Works, &c. 281			
General... ... 283	1,096		
Iron works ... 138			
Mechanics ... 146			
Shipyard ... 89			
		Total	12,482

The following list of the present occupations of girls clearly indicates that the schools continue to be successful in securing permanent situations for their charges. As showing the increasing advantage accruing from special training it is interesting to note the advance in the number of dressmakers from 41 to 65, while of the occupations not formerly specified in these lists are clerks and typists 7, and teachers 9. The number in casual employment—frequently changing their situations, or living at home and only working occasionally, is still fairly low, 140, but scarcely as low as one would like to see it. The convictions, as in the case of boys, show a slight increase and the number of unknowns though two less than last year is still far too great, owing partly to reasons referred to in previous report and partly to the fact that on this occasion a more strict adherence to the rule relating to the dates of reports was enforced—thus information received by the school after 31st December, 1907, was not accepted.

OCCUPATIONS, GIRLS.

Occupations.	No.	Occupations.	No.
Charing	26	Nursemaids	98
Clerks, typists, &c.	7	Parlourmaids	21
Cooks	52	Scholars	29
Dairymaids	13	Shop assistants	22
Dressmakers, &c.	65	Teachers	9
Factory or mill	221	Waitresses	23
General servants	1,235	Others in regular employment.	23
Housemaids	268		
Kitchenmaids	114	Casual	140
Ladies' maids	2	Convicted	38
Laundrymaids—		Dead	61
Private	165	Unknown	182
Public	48		
Married	123	Total	2,985

The number of young emigrants to the colonies was in 1907, 276, viz., 240 boys and 36 girls. Of these 52 (51 boys and 1 girl) were from Reformatory Schools, and the great majority went, as usual, to Canada. Early in the present year, however, notice was given by the Canadian Government that young people from Reformatories were henceforth to be debarred from landing in Canada, and this despite the fact that at least two Reformatories (Redhill and Weston) have been and still are being applied to by Canadian farmers and other employers for boys like those they had previously sent out. No information is as yet forthcoming as to the ground for this exclusion of young people, specially trained for service in the colonies, and there was perhaps never a time when such exclusion was less deserved by the schools. It may, however, prove a blessing in disguise and Canada's loss may mean a gain to the land and the army of the mother country.

Parental Contributions.

During 1907 the amount paid over to H.M. Paymaster-General in respect of parental contributions was £30,047.* About £800 of this amount, however, would, but for some of the more important police agencies being required to remit monthly instead of quarterly, have appeared in the account for 1908. The fact is that the lack of employment has told against the collection, and that notwithstanding there has been no falling off in zeal or ability on the part of the staff at the head office or of the agents throughout the country there has been an actual decrease of something like £300 as compared with the previous year.

Various visits were paid to the Provincial Agencies, and in the last quarter of the year, Mr. More, accompanied by Mr. Melville, paid a special visit to each of the agencies, from Bristol in the South to Aberdeen in the North, going fully into the methods of book-keeping adopted, auditing the accounts, and visiting several of the parents. Generally, Mr. More was able to report very favourably as to the way in which the several agents performed their work and surmounted difficulties, which, varying in character and degree, are to be found in every district. The chief difficulty in Scotland is the extent of ground which has to be covered by the agents, owing to the difficulty found in persuading the Police Authorities of Scotland to take quite the same view of the work as is the case in England. It is gratefully acknowledged, however, that several of the chief officers of Police in Scotland, render considerable assistance to the agents of the Department, and a few of them deal directly with the head office. Too much stress cannot be laid on the importance of keeping alive as much as possible the sense of parental responsibility without, at the same time, pressing unduly hard upon the deserving poor. Occasional visits to the agents by one of the senior Inspectors are therefore very desirable from more than one point of view, and it would be of great advantage to the whole system, if more visits could be paid to the various police districts and the chief constables conferred with, and the parents visited in their homes to a greater extent than is at present found possible.

The Department has sustained a loss by the retirement after 36 years of most devoted and zealous service as chief agent at Glasgow, of Mr. John Nicolson. He enjoyed the confidence and earned the thanks of each and all of the Inspectors, from Rev. Sydney Turner onwards, as one who had ever at heart the the best interests of the public service. Thanks are again due to the police all over the country for a continuance of that ready help which they have always been willing to give and which

* Including £317 costs recovered, and £4 for remand cases.

is now characterised by a knowledge and sympathy in some of the most important centres which is in the highest degree encouraging; to the other agents who serve the Department faithfully without pressing too hardly on the unfortunate and deserving; and to the schools for recognising that their work is in vain if it in any way tends to impair the sense of parental responsibility.

In conclusion I would express my own personal acknowledgments to my colleagues on the Inspectorate and in the office for the assistance and support they have so cordially given me.

I have the honour to be, Sirs,

Your very obedient Servant,

T. D. ROBERTSON,

H.M. Chief Inspector of Reformatory and Industrial Schools.

APPENDIX No. III. (A. AND B.)

Reformatory Schools.

Return of Number of Inmates, Admissions, Discharges, &c., for the Year ending December 31, 1907.

APPENDIX No. III. (A. AND B.)

REFORMATORY SCHOOLS.—RETURN of NUMBER of INMATES, ADMIS-

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted.	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND.															
BOYS.															
Bedford	84	—	—	12	29	16	21	—	2	2	—	41	79	4	3
Bradwall	96	—	1	9	11	7	8	2	2	2	1	22	70	12	11
Devon	68	—	—	3	12	4	5	3	3	—	—	15	55	14	—
"Cornwall"	372	—	—	15	111	102	18	4	2	—	—	126	255	2	30
St. John's, Roman Catholic ..	159	—	—	5	20	9	8	6	2	—	—	25	123	6	8
Glamorgan	68	—	4	7	4	7	2	1	3	2	—	15	62	2	—
Hardwicke	110	—	5	14	10	11	10	5	—	3	1	30	98	6	1
Kingswood	140	—	5	23	17	18	17	5	2	3	—	45	137	6	2
Hants	54	—	2	6	3	3	4	2	—	2	—	11	45	1	1
Herts	119	—	—	4	23	15	11	1	—	—	—	27	78	22	—
"Akbar"	312	—	1	19	54	44	19	10	1	—	—	74	207	5	18
Liverpool Farm	208	—	—	14	27	19	13	5	3	1	1	42	153	22	7
Farnworth, Roman Catholic ..	183	—	—	12	30	23	11	7	1	—	—	42	123	—	15
Fylde Farm	129	—	2	25	24	28	16	6	—	1	—	51	125	8	6
Birkdale Farm, Roman Catholic	227	—	1	27	48	36	22	11	4	3	—	76	197	6	12
Monmouth	39	—	—	7	6	2	2	4	4	1	1	14	38	—	—
Northampton	96	—	1	10	15	7	9	7	2	1	1	27	88	11	—
North Eastern	208	—	6	19	52	26	20	15	10	6	—	77	205	15	16
Kerrison	114	-	2	12	12	8	10	2	4	2	—	26	100	6	8
Redhill	296	—	1	8	62	35	28	6	2	—	—	71	296	5	27
Saltley	127	—	2	17	11	11	10	6	2	1	—	30	100	10	15
Warwick	107	—	1	7	17	10	11	1	3	—	—	25	99	6	1
Wilts	112	—	5	12	19	7	20	7	1	1	—	36	100	9	2
Stoke Farm	101	—	1	4	13	7	7	4	—	—	—	18	81	12	4
Calder Farm	116	—	1	6	30	10	11	11	2	3	—	37	110	4	20

APPENDIX No. III. (A. AND B.)

SIONS, DISCHARGES, &c., for the Year ending December 31, 1907.

DISCHARGES IN 1907.											UNDER DETENTION 31ST DECEMBER, 1907.					SCHOOL.
To Friends.																
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School.	On Licence.	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	
																	ENGLAND.
																	BOYS.
7	—	—	—	12	1	—	—	—	—	27	80	18	—	—	—	98	Bedford.
3	—	—	—	—	—	—	—	—	1	27	70	21	—	—	—	91	Bradwall.
5	—	—	—	—	—	—	1	—	—	20	55	7	—	1	—	63	Devon.
2	—	1	47	3	1	—	1	3	3	93	260	145	—	—	—	405	"Cornwall."
13	—	3	—	8	—	—	—	—	3	41	124	15	—	3	1	143	St. John's, Roman Catholic.
17	1	—	—	—	—	—	—	—	—	20	62	—	—	1	—	63	Glamorgan.
12	—	—	1	—	1	—	—	—	1	22	95	21	—	2	—	118	Hardwicke.
11	—	1	2	11	1	—	—	—	1	35	140	9	—	1	—	150	Kingswood
9	1	—	1	7	—	—	—	—	—	20	45	—	—	—	—	45	Hants.
—	—	—	—	—	—	—	—	—	1	23	78	41	1	3	—	123	Herts.
6	—	—	53	—	1	—	2	2	1	88	202	96	—	—	—	298	"Akbar."
8	—	1	—	5	5	—	—	1	1	50	150	49	—	1	—	200	Liverpool Farm.
—	—	—	27	—	—	—	—	—	—	42	125	57	—	1	—	183	Farnworth, Roman Catholic.
8	—	—	—	4	1	—	—	—	4	31	132	16	—	1	—	149	Fylde Farm.
17	—	—	12	3	—	—	—	—	—	50	201	52	—	—	—	253	Birkdale Farm, Roman Catholic.
9	2	—	—	—	—	—	—	—	—	11	41	1	—	—	—	42	Monmouth.
10	3	—	—	1	1	—	—	—	1	27	85	11	—	—	—	96	Northampton.
18	4	5	1	—	1	—	—	—	—	60	210	13	—	2	—	225	North Eastern.
3	—	—	—	13	—	—	—	—	—	30	97	13	—	—	—	110	Kerrison.
4	2	20	—	9	2	—	—	—	—	69	296	—	—	—	2	298	Redhill.
1	1	4	—	2	—	—	—	—	—	33	101	23	—	—	—	124	Saltley.
10	3	4	—	2	—	—	—	—	—	26	98	8	—	—	—	106	Warwick.
3	—	—	—	6	—	—	—	—	—	20	100	28	—	—	—	128	Wilts.
1	—	—	—	3	—	—	1	—	—	21	79	19	—	—	—	98	Stoke Farm.
1	—	—	—	—	—	—	—	—	—	25	110	17	—	1	—	128	Calder Farm.

APPENDIX No. III. (A. AND B.)

REFORMATORY SCHOOLS.—Return of Number of Inmates, Admissions,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted.	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND—*continued.*															
BOYS—*continued.*															
Castle Howard	112	—	1	4	6	4	5	1	1	—	1	12	97	5	4
Leeds	179	—	1	12	24	14	14	5	4	—	—	37	149	7	18
Market Weighton, Roman Cath.	212	—	8	28	27	26	16	11	7	3	—	63	196	9	4
GIRLS.															
Devon	47	—	—	4	9	12	1	—	—	—	—	13	52	4	—
Sunderland	55	—	—	4	11	10	4	—	1	—	1	16	54	8	—
Arno's Court, Roman Catholic	64	—	—	4	13	14	2	1	—	—	—	17	73	18	1
Red Lodge	43	—	—	6	3	8	1	—	—	—	—	9	41	6	—
Liverpool	84	—	—	10	19	21	7	1	—	—	—	29	70	15	—
Toxteth Park	69	—	—	4	11	11	3	—	1	—	—	15	65	6	—
Lancashire, Roman Catholic ..	81	—	—	6	15	15	5	—	1	—	—	21	70	12	—
Ipswich	46	—	1	9	3	10	3	—	—	—	—	13	44	7	—
Warwick	—	—	—	6	8	12	2	—	—	—	—	14	—	—	—
SCOTLAND.															
BOYS.															
Wellington Farm	119	—	3	10	12	10	8	2	3	2	—	25	109	9	11
Rossie	39	—	1	7	11	6	5	3	4	1	—	19	75	4	12
Parkhead, Roman Catholic ..	242	2	5	21	33	18	21	12	7	3	—	61	199	7	5
Kibble	143	—	6	20	15	5	15	14	2	5	—	41	118	4	22
Stranraer	114	—	10	16	8	6	12	11	2	3	—	34	90	3	—
GIRLS.															
Dalry	45	—	—	5	2	4	3	—	—	—	—	7	44	6	—
East Chapelton	54	—	1	3	7	7	3	—	1	—	—	11	55	11	—

APPENDIX No. III. (A. AND B.)

Discharges, &c., for the Year ending December 31, 1907—*continued.*

Discharges in 1907.											Under Detention 31st December, 1907.						School.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School	On Licence	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	Boys—*continued.*
6	5	—	1	1	—	—	—	1	—	23	91	10	—	—	—	101	Castle Howard.
10	—	—	—	7	—	—	—	1	—	43	146	26	-	1	—	173	Leeds.
40	—	—	1	8	1	—	1	3	—	67	191	16	-	1	—	208	Market Weighton, Roman Catholic.
																	Girls.
4	1	—	—	—	—	—	—	—	—	9	51		—	—	—	51	Devon.
3	2	—	—	—	—	—	—	—	—	13	56	2	—	—	—	58	Sunderland.
—	—	—	—	—	—	—	—	—	—	19	62	—	—	—	—	62	Arno's Court, Roman Catholic.
4	1	—	—	—	—	—	—	1	—	12	39	1	—	—	—	40	Red Lodge.
5	—	—	—	—	—	—	—	—	—	20	78	15	—	—	—	93	Liverpool.
2	—	—	—	—	—	—	—	—	—	8	63	13	—	—	—	76	Toxteth Park.
6	—	—	—	—	—	1	—	—	2	21	73	7		1	—	81	Lancashire, Roman Catholic.
6	—	—	—	—	—	—	1	—	—	14	45	—		1	—	45	Ipswich.
—	—	—	—	—	—	—	—	—	—	—	12	—	-	2	—	14	Warwick.
																	SCOTLAND.
																	Boys.
—	—	—	—	1	1	—	—	—	1	23	110	10	-	1	—	121	Wellington Farm.
—	—	—	—	3	—	—	—	—	—	19	75	14	—	—	—	89	Rossie.
18	7	—	—	2	1	—	—	1	2	44	193	50	—	11	—	259	Parkhead, Roman Catholic.
—	—	12	—	1	—	-		—	—	39	120	24		1	—	145	Kibble.
24	—	—		3	—	—	-	—	1	31	90	25	—	2	—	117	Stranraer.
																	Girls.
1	1	—	—	—	—	—		1	—	9	41	2	-	—	—	43	Dalry.
1	—	1	—	—	—	—		—	—	13	49	3	—	—	—	52	East Chapelton.

APPENDIX No. III. (A. AND B.)—ABSTRACT.

REFORMATORY SCHOOLS.—TOTAL NUMBER of INMATES, ADMIS-

—	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.											Average Number of Inmates during the year.	To Employment.	
		Under 10.	From 10 to 12.	From 12 to 14.	From 14 to 16.	Not before convicted.	Once before convicted.	Twice before convicted.	Three times before convicted.	Four times and upwards before convicted.	Transferred from other Reformatories.	Total Number of Admissions.		Not living with Friends.	Living with Friends.
ENGLAND.															
Boys, Protestant	3,367	—	42	269	592	415	291	113	53	31	6	909	2,827	194	194
Boys, Roman Catholic	781	—	9	72	125	94	57	35	14	6	—	206	639	21	39
Girls, Protestant	344	—	1	43	64	84	21	1	2	—	1	109	335	46	—
Girls, Roman Catholic	145	—	—	10	28	29	7	1	1	—	—	38	143	30	1
SCOTLAND.															
Boys, Protestant	465	—	20	53	46	27	40	30	11	11	—	119	392	20	45
Boys, Roman Catholic	242	2	5	21	33	18	21	12	7	3	—	61	199	7	6
Girls, Protestant	99	—	1	8	9	11	6	—	1	—	—	18	99	17	—
Girls, Roman Catholic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total—Boys	4,855	2	76	415	798	554	409	190	85	51	6	1,295	4,057	242	284
Girls	588	—	2	61	101	124	34	2	4	—	1	165	577	93	1

APPENDIX No. III. (A. AND B.)—ABSTRACT.

SIONS, DISCHARGES, &c., for the Year ending December 31, 1907.

DISCHARGES IN 1907.											UNDER DETENTION 31ST DECEMBER, 1907.					
To Friends.																
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	On account of Disease.	As Incorrigible or to Penal Servitude.	Transferred.	Died.	Absconded.	Total.	In School.	On Licence.	In Prison.	Absconded, Sentence unexpired.	Retained in School, Sentence expired.	Total.	
																	ENGLAND.
164	22	36	106	86	15	—	5	8	14	844	2,823	592	1	14	2	3,432	Boys, Protestant.
70	—	3	40	19	1	—	1	3	3	200	641	140	—	5	1	787	Boys, Roman Catholic.
24	4	—	—	—	—	—	1	1	—	76	344	31	—	2	—	377	Girls, Protestant.
6	—	—	—	—	—	1	—	—	2	40	135	7	—	1	—	143	Girls, Roman Catholic.
																	SCOTLAND.
24	—	12	—	8	1	—	—	—	2	112	395	73	—	4	—	472	Boys, Protestant.
18	7	—	—	2	1	—	—	1	2	44	198	50	—	11	—	259	Boys, Roman Catholic.
2	1	1	—	—	—	—	—	1	—	22	90	5	—	—	—	95	Girls, Protestant.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Girls, Roman Catholic.
276	29	51	146	115	18	—	6	12	21	1,200	4,057	855	1	34	3	4,950	Total—Boys.
32	5	1	—	—	—	1	1	2	2	138	569	43	—	3	—	615	Girls.

APPENDIX No. III. (C.)—ABSTRACT.

REFORMATORY SCHOOLS.

TOTALS of the NUMBER of YOUNG OFFENDERS ADMITTED into and DISCHARGED from CERTIFIED REFORMATORY SCHOOLS in GREAT BRITAIN, and the MODE of DISCHARGE, up to December 31, 1907.

	ENGLAND.				SCOTLAND.				TOTAL.	
	PROTESTANT.		ROMAN CATHOLIC.		PROTESTANT.		ROMAN CATHOLIC.			
	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.
ADMISSIONS.										
1854	28	1	—	—	—	—	—	—	28	1
1855	164	24	—	—	167	54	—	—	331	78
1856	477	52	192	4	151	49	—	—	820	143
1857	711	100	247	53	143	50	—	—	1,101	203
1858	553	104	119	40	120	48	—	4	792	196
1859	706	155	148	43	129	58	26	17	1,009	273
1860	765	192	146	46	174	50	60	35	1,145	323
1861	869	259	153	45	184	26	82	18	1,288	348
1862	675	150	161	54	186	55	47	26	1,069	285
1863	643	149	105	47	179	51	49	20	976	267
1864	654	148	233	46	179	48	53	22	1,119	264
1865	753	213	263	52	186	57	54	15	1,256	337
1866	816	193	254	67	207	40	50	20	1,327	320
1867	850	201	270	43	181	38	95	28	1,396	310
1868	828	213	256	32	185	51	68	38	1,337	334
1869	863	199	222	58	177	56	95	17	1,357	330
1870	801	196	254	66	174	44	72	21	1,301	327
1871	790	182	248	59	194	59	63	19	1,295	319
1872	831	240	311	63	186	39	75	26	1,403	368
1873	863	204	308	48	170	40	54	31	1,395	323
1874	821	207	306	57	216	35	43	23	1,386	322
1875	773	150	228	56	161	38	44	10	1,206	254
1876	800	186	258	33	166	23	51	33	1,275	275
1877	1,010	230	271	59	178	37	83	28	1,542	354
1878	895	191	300	66	190	31	72	14	1,457	302
1879	828	196	283	62	169	35	72	24	1,352	317
1880	848	185	248	58	217	30	67	32	1,380	305
1881	784	172	248	61	149	27	51	16	1,232	276
1882	935	187	272	55	170	16	61	9	1,438	267
1883	878	202	234	54	157	21	68	14	1,337	291
1884	844	139	221	57	154	22	70	18	1,289	236
1885	824	157	198	34	176	19	62	27	1,260	237
1886	848	146	227	49	132	24	62	18	1,269	237
1887	822	152	209	47	139	23	62	25	1,232	247
1888	870	158	234	41	126	17	59	13	1,289	229
1889	943	156	217	29	110	22	30	15	1,300	222
1890	769	143	183	30	117	15	62	4	1,131	192
1891	721	149	168	29	134	18	49	3	1,072	199
1892	773	85	184	34	129	25	52	—	1,138	144
1893	784	117	255	35	158	42	82	—	1,279	194
1894	857	128	266	44	114	35	64	—	1,301	207
1895	798	120	194	50	108	31	64	—	1,164	201

APPENDIX No. III. (C.)—ABSTRACT—*continued.*

	ENGLAND.				SCOTLAND.				TOTAL.	
	PROTESTANT.		ROMAN CATHOLIC.		PROTESTANT.		ROMAN CATHOLIC.			
	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.	BOYS.	GIRLS.
ADMISSIONS—*cont.*										
1896	726	123	180	44	117	30	66	—	1,089	197
1897	814	110	206	49	147	26	69	—	1,236	185
1898	890	93	240	46	177	31	56	—	1,363	170
1899	706	117	227	36	111	24	34	—	1,138	177
1900	903	109	240	44	137	20	76	2	1,356	177
1901	1,038	99	203	52	121	23	93	8	1,455	182
1902	895	108	200	39	99	26	54	—	1,248	173
1903	838	100	194	39	96	19	57	—	1,182	158
1904	821	110	185	39	118	42	47	—	1,171	191
1905	992	89	196	26	140	23	66	—	1,394	138
1906	925	107	206	4	113	20	70	—	1,314	176
1907	909	103	206	38	119	18	61	—	1,295	165
TOTAL	42,552	8,005	11,574	2,432	8,157	1,816	3,922	693	65,285	12,946
DISCHARGES.										
To employment ..	15,975	4,258	2,563	1,338	1,524	892	2,015	396	23,077	6,883
To friends	12,197	2,304	4,335	590	1,695	428	471	221	18,698	3,543
Emigrated	2,939	81	457	69	329	95	10	13	3,735	258
Sent to sea	5,523	—	2,138	—	158	—	15	—	7,834	—
Enlisted	1,372	—	466	—	156	—	2	—	1,996	—
Disease	541	215	139	51	92	39	45	3	817	308
Incorrigible ..	222	90	57	23	20	20	6	4	305	137
Transferred ..	880	335	136	81	236	70	22	27	1,254	522
Died	606	189	313	116	226	49	81	27	1,286	381
Absconded	805	150	183	18	249	122	96	3	1,333	293
TOTAL ..	39,120	7,628	10,787	2,289	7,685	1,721	2,763	693	60,335	12,331
Under detention, Dec. 31, 1907.	3,432	777	787	143	472	95	250	—	5,941	915
In school	2,893	744	641	143	395	95	196	—	4,125	982
On licence	536	33	146	—	77	—	54	—	813	33
In prison	1	—	—	—	—	—	—	—	1	—
Absconded	44	2	5	1	1	—	11	—	61	3
Retained	2	—	1	—	—	—	—	—	3	—

APPENDIX No. III. (D.)

REFORMATORY SCHOOLS.—RETURN of INMATES who have left on the NUMBER in regular employment, CONVICTED of CRIME, &c.,

	ENGLAND.															
	BOYS.															
SCHOOL.	Bedford.	Bradwall.	Devon and Exeter.	"Cornwall."	St. John's, Roman Catholic.	Glamorgan.	Hardwicke.	Kingswood.	Hants.	Herts.	"Akbar."	Liverpool Farm.	Farnworth, Roman Catholic.	Fylde Farm.	Birkdale Farm, Roman Catholic.	Monmouth.
LEFT DURING YEARS 1904, 1905, AND 1906.																Mode of
To employment— (*a*) Away from friends	25	25	24	11	16	4	17	24	8	78	10	50	—	24	19	5
(*b*) To live with friends	—	33	1	115	43	—	—	15	4	—	48	42	36	32	46	1
To friends— (*a*) Friends of decent character.	17	3	5	17	48	27	25	41	39	2	17	36	3	21	43	11
(*b*) Friends of questionable character, or otherwise undesirable.	4	—	2	1	1	1	2	—	—	1	1	3	—	3	—	3
Emigrated	—	—	2	—	15	—	—	1	—	—	1	2	—	—	—	—
To sea	—	—	—	112	2	—	3	2	3	—	140	4	74	—	48	—
Enlisted	11	2	5	23	38	—	—	21	11	—	—	12	—	10	2	—
Specially discharged ..	1	—	—	5	—	—	1	—	—	3	6	6	—	3	3	—
Absconders, discharged by expiration of sentence or warrant of Secretary of State.	—	1	1	7	5	—	—	2	—	—	3	—	1	—	—	—
TOTAL	58	64	40	291	168	32	48	106	65	84	226	155	114	93	161	20
																Subsequent Character
Since dead	—	—	—	6†	2	1	1	—	—	—	6	5‖	1	5	2	—
In regular employment	42	54	27	231	112	25	38	86	57	69	162	130	93	61	136	6
Not in regular employment.	4*	1	—	10‡	8*	3§	2	3	—	6§	10	6	11	5§	8‡	1
Convicted of crime ..	11	6	8	41	19	3	6	12	6	6	18	10	4	12	8	2
Unknown	1	3	5	3	27	—	1	5	2	3	30	4	5	7	5	11
TOTAL	58	64	40	291	168	32	48	106	65	84	226	155	114	93	161	20
Percentage in regular employment.	72	84	68	81	67	81	81	81	88	82	74	87	82	73	87	30
Percentage reconvicted..	19	9	20	14	11	10	13	11	9	7	8	7	4	14	5	10
Ditto unknown ..	2	5	12	1	16	—	2	5	3	4	14	3	4	8	3	55

NOTE.—The dead include those imbecile; and children discharged by the Secretary of State on
* 3 physically unfit. † 1 imbecile. ‡ 1 physically unfit. § 2 physically unfit.

APPENDIX No. III. (D.)

DISCHARGE or LICENCE for the YEARS 1904, 1905, and 1906, showing since their DISCHARGE or LICENCE to DECEMBER 31, 1907.

ENGLAND.

BOYS.

Northampton.	North-Eastern.	Kerrison.	Redhill.	Salisley.	Warwick.	Wilts.	Stoke Farm.	Calder Farm.	Castle Howard.	Leeds.	Market Weighton, Rom. Catholic.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.	
Discharge.														LEFT DURING YEARS 1904, 1905, AND 1906.
17	33	18	11	32	8	42	40	29	17	21	6	573	41	To employment— (a) Away from friends.
7	52	23	124	40	—	9	16	62	3	59	5	686	130	(b) To live with friends.
26	51	14	29	5	41	26	10	3	14	35	139	515	233	To friends— (a) Friends of decent character.
6	5	—	5	—	5	1	—	1	9	—	7	53	8	(b) Friends of questionable character, or otherwise undesirable.
2	9	—	57	12	5	—	—	—	1	—	1	92	16	Emigrated.
—	—	—	—	—	1	—	—	—	—	1	5	266	129	To sea.
—	3	35	15	6	6	5	2	1	23	15	8	206	42	Enlisted.
1	—	1	—	—	—	4	—	1	—	1	—	33	3	Specially discharged.
1	3	—	1	—	—	—	—	—	3	4	—	26	6	Absconders, discharged by expiration of sentence or warrant of Secretary of State.
60	156	91	242	95	66	87	68	97	70	136	171	2,450	614	TOTAL.
[illegible] Circumstances.														
2†	5	—	3	1	3	3	—	3†	—	—	14†	44¶	19†	Since dead.
48	99	83	208	79	56	71	56	75	43	96	109	1,905	452	In regular employment.
2	14	1	7	5§	2	5‡	5§	2	5‡	7§	12§	106**	39††	Not in regular employment.
6	29	6	23	10	5	8	7	14	11	27	26	287	57	Convicted of crime.
2	9	1	1	—	—	—	—	3	11	6	10	108	47	Unknown.
60	156	91	242	95	66	87	68	97	70	136	171	2,450	614	TOTAL.
83	66	91	87	84	89	85	82	80	61	71	69	79	76	Percentage in regular employment.
10	19	7	10	11	8	10	10	15	16	20	17	12	10	Percentage reconvicted.
3	6	1	—	—	—	—	—	3	16	4	6	4	8	Ditto unknown.

the ground of physical unfitness for training are included in those in casual employment.

‡ 2 Imbecile. ¶ 5 imbecile. ** 18 physically unfit. †† 6 physically unfit.

APPENDIX No. III. (D.)

Reformatory Schools.—Return of Inmates who have left on Discharge or Licence for of Crime, &c., since their Discharge

	ENGLAND—*continued.*									
	GIRLS.									
SCHOOL:	Devon and Exeter.	Sunderland.	Arno's Court, Roman Catholic.	Red Lodge	Liverpool.	Toxteth Park.	Lancashire, Roman Catholic.	Ipswich.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.
LEFT DURING YEARS 1904, 1905, AND 1906.										Mode of
To employment— (*a*) Away from friends	23	23	69	22	38	39	42	30	175	111
(*b*) To live with friends	2	1	1	—	—	—	—	—	3	1
To friends— (*a*) Friends of decent character.	13	13	9	7	25	13	7	6	77	16
(*b*) Friends of questionable character, or otherwise undesirable.	1	1	1	1	—	1	1	—	4	2
Emigrated	—	3	—	1	3	1	—	—	8	—
To sea	—	—	—	—	—	—	—	—	—	—
Enlisted	—	—	—	—	—	—	—	—	—	—
Specially discharged ..	1	1	—	—	5	2	1	—	9	1
Absconders, discharged by expiration of sentence or warrant of Secretary of State.	—	—	—	—	—	—	—	1	1	—
TOTAL	40	42	80	31	71	56	51	37	277	131
										Subsequent Character
Since dead	—	3*	1	2	1*	1	1*	—	7‡	2*
In regular employment	29	38	73	25	54	50	43	21	217	116
Not in regular employment.	2	1	3	3†	4†	1	1†	1†	12§	4†
Convicted of crime ..	1	—	2	—	6	1	2	2	10	4
Unknown	8	—	1	1	6	3	4	13	31	5
TOTAL	40	42	80	31	71	56	51	37	277	131
Percentage in regular employment.	72	97	92	86	77	91	86	57	80	90
Percentage reconvicted..	2	—	3	—	9	2	4	5	4	3
Ditto unknown ..	20	—	1	3	9	5	8	35	11	4

NOTE.—The dead include those imbecile; and children discharged by Secretary of State on
* 1 imbecile. † 1 physically unfit. ‡ 2 imbecile.

APPENDIX No. III. (D.)

the Years 1904, 1905, and 1906, showing the Number in regular employment, Convicted or Licence to December 31, 1907—*continued.*

SCOTLAND.										
BOYS.							GIRLS.			
Wellington Farm.	Rossie.	Parkhead, Roman Catholic.	Kibble	Stranraer.	TOTAL PROTESTANT.	TOTAL ROMAN CATHOLIC.	Dalry.	East Chapelton.	TOTAL PROTESTANT.	
Discharge.										LEFT DURING YEARS 1904, 1905, AND 1906.
20	12	36	33	45	110	36	22	27	49	To employment— (*a*) Away from friends.
47	38	11	38	18	141	11	—	3	3	(*b*) To live with friends.
7	5	84	—	17	29	84	10	5	15	To friends— (*a*) Friends of decent character.
3	—	29	—	—	3	29	—	2	2	(*b*) Friends of questionable character, or otherwise undesirable.
2	1	—	20	—	23	—	—	—	—	Emigrated.
—	—	—	—	—	—	—	—	—	—	To sea.
3	12	—	10	3	28	—	—	—	—	Enlisted.
—	—	3	—	—	—	3	—	1	1	Specially discharged.
1	1	9	1	—	3	9	—	2	2	Absconders, discharged by expiration of sentence or warrant of Secretary of State.
83	69	172	102	83	337	172	32	40	72	TOTAL.
and Circumstances.										
—	2*	—	1	—	3*	—	—	2*	2*	Since dead.
75	52	107	80	64	271	107	24	27	51	In regular employment.
—	3†	5	—	5	8†	5	4‖	8§	12¶	Not in regular employment.
8	11	48	20	8	47	48	—	3	3	Convicted of crime.
—	1	12	1	6	8	12	4	—	4	Unknown.
83	69	172	102	83	337	172	32	40	72	TOTAL.
90	78	62	79	77	81	62	75	71	73	Percentage in regular employment.
10	16	28	20	10	14	28	—	8	4	Percentage reconvicted.
—	1	7	1	7	2	7	12	—	6	Ditto unknown.

the ground of physical unfitness for training are included in those in casual employment.
§ 3 physically unfit. ‖ 2 physically unfit. ¶ 5 physically unfit.

APPENDIX No. III. (D.)—ABSTRACT.

REFORMATORY SCHOOLS.

Discharges for Years 1904, 1905, and 1906.	England.						Scotland.					
	Results to December 31, 1907.						Results to December 31, 1907.					
How discharged.	TOTAL.	Since dead.*	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	TOTAL.	Since dead.*	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
BOYS, PROTESTANT.												
To employment—												
(*a*) Away from friends.	573	2	467	25	59	20	110	—	88	3	14	5
(*b*) To live with friends.	686	8	542	25	93	18	141	3	111	4	22	1
To friends—												
(*a*) Friends of decent character.	515	16	380	36	62	21	22	—	24	1	3	1
(*b*) Friends of questionable character, or otherwise undesirable.	53	1	35	4	7	6	3	—	3	—	—	—
Emigrated	92	—	79	1	9	3	23	—	21	—	2	—
To sea	266	2	215	10	23	16	—	—	—	—	—	—
Enlisted	206	1	171	4	23	7	28	—	22	—	6	—
Specially discharged..	33	13	9	1	7	3	—	—	—	—	—	—
Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	26	1	7	—	4	14	3	—	2	—	—	1
TOTAL	2,450	44	1,905	106	287	108	337	3	271	8	47	8
BOYS, ROMAN CATHOLIC.												
To employment—												
(*a*) Away from friends.	41	—	34	1	1	5	36	—	25	2	8	1
(*b*) To live with friends.	130	—	98	12	9	11	11	—	8	1	2	—
To friends—												
(*a*) Friends of decent character.	233	16	156	20	26	15	84	—	62	—	17	5
(*b*) Friends of questionable character, or otherwise undesirable.	8	—	3	—	5	—	29	—	7	2	18	2
Emigrated	16	—	10	—	3	3	—	—	—	—	—	—
To sea	129	2	110	6	6	5	—	—	—	—	—	—
Enlisted	48	1	37	—	5	5	—	—	—	—	—	—
Specially discharged..	3	—	1	—	1	1	3	—	1	—	2	—
Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	6	—	3	—	1	2	9	—	4	—	1	4
TOTAL	614	19	452	39	57	47	172	—	107	5	48	12

* NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment.

APPENDIX No. III. (D.)—ABSTRACT.

REFORMATORY SCHOOLS.

Discharges for Years 1904, 1905, and 1906.	England. Results to December 31, 1907.						Scotland. Results to December 31, 1907.					
How discharged.	Total.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.	Total.	Since dead.	In regular employment.	Not in regular employment.	Convicted of crime.	Unknown.
GIRLS, PROTESTANT.		*						*				
To employment—												
(*a*) Away from friends.	175	1	140	7	6	21	49	—	35	9	1	4
(*b*) To live with friends.	3	—	2	—	—	1	3	—	3	—	—	—
To friends—												
(*a*) Friends of decent character.	77	4	62	3	3	5	15	1	9	3	2	—
(*b*) Friends of questionable character, or otherwise undesirable.	4	—	3	1	—	—	2	—	2	—	—	—
Emigrated	8	—	8	—	—	—	—	—	—	—	—	—
Specially discharged..	9	2	2	1	1	3	1	1	—	—	—	—
Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	1	—	—	—	—	1	2	—	2	—	—	—
TOTAL	277	7	217	12	10	31	72	2	51	12	3	4
GIRLS, ROMAN CATHOLIC.												
To employment—												
(*a*) Away from friends.	111	2	100	3	2	4	—	—	—	—	—	—
(*b*) To live with friends.	1	—	1	—	—	—	—	—	—	—	—	—
To friends—												
(*a*) Friends of decent character.	16	—	14	1	—	1	—	—	—	—	—	—
(*b*) Friends of questionable character, or otherwise undesirable.	2	—	1	—	1	—	—	—	—	—	—	—
Emigrated	—	—	—	—	—	—	—	—	—	—	—	—
Specially discharged..	1	—	—	—	1	—	—	—	—	—	—	—
Absconders, discharged by expiration of sentence or by warrant of Secretary of State.	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	131	2	116	4	4	5	—	—	—	—	—	—

NOTE.—The dead include those imbecile; and children discharged by Secretary of State on the ground of physical unfitness for training are included in those in casual employment.

APPENDIX No. III. (E.)

REFORMATORY SCHOOLS, RETURN of

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—BOYS AND GIRLS.					
	BEDFORDSHIRE.	BRADWALL.	DEVON AND EXETER.	DEVON AND EXETER.	SUNDERLAND.	"CORNWALL" SHIP.
Average Number of Inmates	Boys. 79	Boys. 70	Boys. 55	Girls. 52	Girls. 64	Boys. 255
Number of Officers	10	7	7	6	7	20
RECEIPTS.	£	£	£	£	£	£
Treasury Grant..	1,263	1,122	895	783	797	4,257
Subscriptions, Legacies, &c...	14	—	29	7	—	89
County and Borough Rates..	511	363	523	293	277	1,915
Voluntary Inmates	—	—	—	—	1	141
Hire of Labour	39	—	86	—	25	—
Sundries	1	27	—	—	7	106
TOTAL RECEIPTS ..	1,828	1,512	1,533	1,083	1,107	6,508
EXPENDITURE.						
Officers' Salaries and Allowances.	418	565	362	278	309	2,135
Food of Inmates	499	404	509	240	353	1,652
Clothing „	212	208	135	164	286	847
Washing, Fuel, Light, and Furniture.	233	159	150	202	373	680
Repairs, Rates, and Taxes ..	133	23	70	234	129	380
Printing and Office Expenses	55	26	44	81	37	241
Travelling and Police ..	17	4	17	6	30	99
Medical Expenses and Funerals.	36	28	35	22	32	217
Sundries, Rewards, &c. ..	67	60	38	109	26	225
Total Ordinary Charges	1,670	1,477	1,360	1,336	1,575	6,476
Cost per Head for Maintenance and Management.	21·1	21·1	24·7	25·7	29·2	25·4
Ditto Food	6·3	5·8	9·3	4·6	6·5	6·5
Ditto Clothing	2·7	3·0	2·5	3·2	5·3	3·3
Extra Charges.						
Rent, Interest, &c.	—	25	—	—	36	44
Rent of Farm Premises ..	157	56	—	—	—	—
Disposal, Home	102	21	24	18	51	95
„ Emigration ..	—	—	—	—	—	—
Building, Land, and Capital Account.	—	—	130	—	64	1
Total Extra Charges ..	259	102	154	18	151	140
TOTAL EXPENDITURE..	1,929	1,579	1,514	1,354	1,726	6,616
Industrial Departments.						
Profit	295	94	151	209	597	12
Loss	—	—	—	—	—	—

APPENDIX No. III. (E.)

RECEIPTS and EXPENDITURE of, for 1907.

the nearest £ ; cost per head to the nearest tenth of a £.

ENGLAND—BOYS AND GIRLS.						RECEIPTS AND EXPENDITURE.
ST. JOHN'S. Rom. Cath.	GLAMORGAN.	HARDWICKE.	KINGSWOOD.	ARNO'S COURT. Rom. Cath.	RED LODGE.	
Boys. 123	Boys. 62	Boys. 98	Boys. 137	Girls. 73	Girls. 41	Average Number of Inmates.
12	6	10	12	13	5	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
1,926	974	1,474	2,091	962	604	Treasury Grant.
—	—	—	—	—	—	Subscriptions, Legacies, &c.
851	346	692	1,225	375	334	County and Borough Rates.
—	—	—	—	9	—	Voluntary Inmates.
—	190	157	—	—	—	Hire of Labour.
13	84	18	191	—	181	Sundries.
2,790	1,594	2,341	3,507	1,346	1,119	TOTAL RECEIPTS.
						EXPENDITURE.
772	387	457	963	525	296	Officers' Salaries and Allowances.
848	419	505	743	706	278	Food of Inmates.
524	203	212	393	140	74	Clothing „
324	164	215	381	152	179	Washing, Fuel, Light, and Furniture.
241	98	72	407	184	129	Repairs, Rates, and Taxes.
58	113	121	63	25	26	Printing and Office Expenses.
7	2	29	11	22	12	Travelling and Police.
51	16	30	77	47	32	Medical Expenses and Funerals.
106	40	26	157	102	128	Sundries, Rewards, &c.
2,931	1,442	1,667	3,195	1,903	1,154	Total Ordinary Charges.
23·8	23·2	17·0	23·3	26·1	28·1	Cost per Head for Maintenance and Management.
6·9	6·8	5·1	5·4	9·7	6·8	Ditto Food.
4·3	3·3	2·2	2·9	1·9	1·8	Ditto Clothing.
						Extra Charges.
100	28	179	—	445	66	Rent, Interest, &c.
—	59	155	—	—	—	Rent of Farm Premises
38	41	91	88	61	52	Disposal, Home.
8	—	—	—	—	—	„ Emigration.
—	—	—	—	34	—	Building, Land, and Capital Account.
146	128	425	88	540	118	Total Extra Charges.
3,077	1,570	2,092	3,283	2,443	1,272	TOTAL EXPENDITURE.
						Industrial Departments.
—	213	288	—	354	131	Profit.
62	—	—	41	—	—	Loss.

APPENDIX No. III. (E.)

REFORMATORY SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—BOYS AND GIRLS.					
	HANTS.	HERTS.	"AKBAR" SHIP.	LIVERPOOL FARM.	LIVERPOOL.	FARNWORTH. Rom. Cath.
Average Number of Inmates	Boys. 45	Boys. 78	Boys. 207	Boys. 153	Girls. 79	Boys. 123
Number of Officers	6	9	16	17	6	10
RECEIPTS.	£	£	£	£	£	£
Treasury Grant..	587	1,340	3,514	2,390	1,237	2,313
Subscriptions, Legacies, &c...	—	—	47	36	36	—
County and Borough Rates..	475	510	1,491	1,053	560	810
Voluntary Inmates	—	—	—	—	—	—
Hire of Labour	—	671	—	176	—	—
Sundries	92	10	83	4	—	41
TOTAL RECEIPTS ..	1,154	2,531	5,135	3,659	1,833	3,164
EXPENDITURE.						
Officers' Salaries and Allowances.	357	466	1,831	842	320	662
Food of Inmates	321	476	1,151	820	402	773
Clothing „	174	226	587	451	163	284
Washing, Fuel, Light, and Furniture.	131	204	459	312	218	229
Repairs, Rates, and Taxes ..	110	55	638	273	216	258
Printing and Office Expenses	33	136	180	170	87	118
Travelling and Police ..	39	9	99	17	19	33
Medical Expenses and Funerals.	42	23	98	59	47	21
Sundries, Rewards, &c. ..	35	23	134	213	65	133
Total Ordinary Charges	1,242	1,618	5,177	3,157	1,537	2,511
Cost per Head for Maintenance and Management.	27·6	20·7	25·0	20·6	19·5	20·4
Ditto Food	7·1	6·1	5·6	5·4	5·1	6·3
Ditto Clothing	3·9	2·9	2·8	2·9	2·1	2·3
Extra Charges.						
Rent, Interest, &c.	34	138	—	155	—	454
Rent of Farm Premises ..	43	10	—	130	—	—
Disposal, Home	57	103	294	144	120	201
„ Emigration ..	—	—	—	—	—	—
Building, Land, and Capital Account.	—	66	618	581	—	—
Total Extra Charges ..	134	317	912	1,010	120	655
TOTAL EXPENDITURE..	1,376	1,935	6,089	4,167	1,657	3,166
Industrial Departments.						
Profit	114	363	—	—	83	—
Loss	—	—	—	2	—	254

APPENDIX No. III. (E.)

and Expenditure of, for 1907—*continued*.

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—Boys and Girls.						Receipts and Expenditure.
Fylde Farm.	Birkdale Farm. Rom. Cath.	Toxteth Park.	Lancashire. Rom. Cath.	Monmouth.	Northampton	
Boys. 125	Boys. 197	Girls. 65	Girls. 70	Boys. 38	Boys. 88	Average Number of Inmates.
14	20	6	10	6	10	Number of Officers.
£	£	£	£	£	£	Receipts.
1,920	3,073	1,055	1,076	570	1,353	Treasury Grant.
46	—	36	—	—	75	Subscriptions, Legacies, &c.
801	1,618	433	450	211	563	County and Borough Rates.
—	—	—	—	21	6	Voluntary Inmates.
20	—	1	—	4	152	Hire of Labour.
224	111	—	1	—	4	Sundries.
3,011	4,802	1,525	1,643	806	2,153	Total Receipts
						Expenditure.
748	1,364	313	285	207	560	Officers' Salaries and Allowances.
679	1,139	310	450	248	623	Food of Inmates.
441	639	185	261	92	247	Clothing „
422	412	206	389	87	262	Washing, Fuel, Light, and Furniture.
243	314	158	191	36	101	Repairs, Rates, and Taxes.
106	136	81	86	30	86	Printing and Office Expenses.
45	17	14	12	4	50	Travelling and Police.
50	76	167	15	15	72	Medical Expenses and Funerals.
154	90	75	108	29	69	Sundries, Rewards, &c.
2,888	4,187	1,489	1,797	748	2,070	Total Ordinary Charges.
23·1	21·3	22·9	25·7	19·7	23·5	Cost per Head for Maintenance and Management.
5·4	5·8	4·8	6·4	6·5	7·1	Ditto Food.
3·5	3·2	2·5	3·7	2·4	2·8	Ditto Clothing.
						Extra Charges.
—	139	—	120	—	51	Rent, Interest, &c.
—	41	—	—	17	60	Rent of Farm Premises.
54	333	72	65	6	128	Disposal, Home.
—	—	—	—	—	—	„ Emigration.
—	—	—	—	—	52	Building, Land, and Capital Account.
54	513	72	185	23	291	Total Extra Charges.
2,942	4,700	1,561	1,982	771	2,361	Total Expenditure.
						Industrial Departments.
229	72	34	397	—	252	Profit.
—	—	—	—	143	—	Loss.

APPENDIX No. III. (F.)

REFORMATORY SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—BOYS AND GIRLS.				
	NORTH-EASTERN.	KERRISON.	IPSWICH.	REDHILL.	SALTLEY.
Average Number of Inmates	Boys. 205	Boys. 100	Girls. 44	Boys. 296	Boys. 100
Number of Officers	27	11	4	32	11
RECEIPTS.	£	£	£	£	£
Treasury Grant	3,070	1,593	657	4,482	1,602
Subscriptions, Legacies, &c...	18	—	—	939	57
County and Borough Rates..	859	282	284	3,032	519
Voluntary Inmates	55	—	—	—	—
Hire of Labour	936	28	—	—	—
Sundries	162	40	78	214	—
TOTAL RECEIPTS ..	5,100	1,943	1,019	8,667	2,178
EXPENDITURE.					
Officers' Salaries and Allowances.	1,273	477	229	1,819	619
Food of Inmates	1,685	623	219	1,916	752
Clothing „	716	290	102	930	168
Washing, Fuel, Light, and Furniture.	450	190	129	955	287
Repairs, Rates, and Taxes ..	202	50	104	721	106
Printing and Office Expenses	210	60	41	645	116
Travelling and Police	35	15	17	177	61
Medical Expenses and Funerals.	112	60	13	202	28
Sundries, Rewards, &c. ..	751	109	48	417	95
Total Ordinary Charges	5,434	1,874	902	7,782	2,232
Cost per Head for Maintenance and Management.	26·5	18·7	20·5	26·3	22·3
Ditto Food	8·2	6·2	5·0	6·5	7·5
Ditto Clothing	3·5	2·9	2·3	3·1	1·7
Extra Charges.					
Rent, Interest, &c.	—	—	—	—	—
Rent of Farm Premises ..	87	188	—	15	30
Disposal, Home	200	119	20	112	69
„ Emigration ..	25	—	—	322	41
Building, Land, and Capital Account.	—	25	—	650	—
Total Extra Charges ..	312	332	20	1,099	140
TOTAL EXPENDITURE..	5,746	2,206	922	8,881	2,372
Industrial Departments.					
Profit	2,160	88	80	492	202
Loss	—	—	—	—	—

* Reopened in new premises during the year.

APPENDIX No. III. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—Boys and Girls.					Receipts and Expenditure.
Warwickshire.	Warwickshire.*	Wilts.	Stoke Farm.	Calder Farm.	
Boys.	Girls.	Boys.	Boys.	Boys.	
99	—	100	81	110	Average Number of Inmates.
16	5	10	11	14	Number of Officers.
£	£	£	£	£	Receipts.
1,549	60	1,681	1,332	1,693	Treasury Grant.
96	2,600	—	—	120	Subscriptions, Legacies, &c.
565	2,118	855	420	967	County and Borough Rates.
—	—	—	21	—	Voluntary Inmates.
—	—	156	—	266	Hire of Labour.
67	1,107†	11	—	—	Sundries.
2,277	5,885	2,503	1,773	3,046	Total Receipts.
					Expenditure.
687	212	702	478	585	Officers' Salaries and Allowances.
630	56	546	552	600	Food of Inmates.
247	37	395	204	368	Clothing „
331	548	200	156	303	Washing, Fuel, Light, and Furniture.
116	84	206	77	103	Repairs, Rates, and Taxes.
138	81	130	96	120	Printing and Office Expenses.
12	15	53	67	26	Travelling and Police.
58	1	54	25	20	Medical Expenses and Funerals.
57	2	95	69	180	Sundries, Rewards, &c.
2,226	1,036	2,381	1,723	2,305	Total Ordinary Charges.
22·5	—	23·8	21·3	21·0	Cost per Head for Maintenance and Management.
6·4	—	5·5	6·8	5·4	Ditto Food.
2·5	—	3·9	2·5	3·3	Ditto Clothing.
					Extra Charges.
—	—	62	49	145	Rent, Interest, &c.
—	—	39	348	165	Rent of Farm Premises.
122	—	56	39	111	Disposal, Home.
28	—	—	—	—	„ Emigration.
185	6,563	225	27	208	Building, Land, and Capital Account.
335	6,563	382	463	629	Total Extra Charges.
2,561	7,599	2,763	2,186	2,934	Total Expenditure.
					Industrial Departments.
207	—	427	201	246	Profit.
—	21	—	—	—	Loss.

† Including £1,000 for sale of old premises.

APPENDIX No. III. (E.)

REFORMATORY SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—BOYS AND GIRLS.			SCOTLAND.	
	CASTLE HOWARD.	LEEDS.	MARKET WEIGHTON. Rom. Cath.	DALEY.	WELLINGTON FARM.
Average Number of Inmates	Boys. 97	Boys. 149	Boys. 196	Girls. 44	Boys. 109
Number of Officers	13	16	29	5	17
RECEIPTS.	£	£	£	£	£
Treasury Grant	1,453	2,375	3,032	645	1,731
Subscriptions, Legacies, &c...	299	75	200	—	88
County and Borough Rates..	686	947	974	205	671
Voluntary Inmates	—	—	—	9	—
Hire of Labour	249	140	151	—	—
Sundries	54	33	—	87	34
TOTAL RECEIPTS ..	2,741	3,570	4,357	946	2,524
EXPENDITURE.					
Officers' Salaries and Allowances.	730	938	1,366	251	826
Food of Inmates	879	925	1,114	235	538
Clothing „	324	504	632	98	388
Washing, Fuel, Light, and Furniture.	426	474	313	72	169
Repairs, Rates, and Taxes ..	485	175	130	68	267
Printing and Office Expenses	81	76	96	21	80
Travelling and Police ..	19	46	51	16	12
Medical Expenses and Funerals.	84	43	82	24	53
Sundries, Rewards, &c. ..	199	168	205	61	78
Total Ordinary Charges	3,027	3,349	3,989	846	2,411
Cost per Head for Maintenance and Management.	31·2	22·5	20·3	19·2	22·1
Ditto Food	7·0	6·2	5·7	5·3	4·9
Ditto Clothing	3·3	3·4	3·2	2·2	3·6
Extra Charges.					
Rent, Interest, &c.	—	75	—	—	—
Rent of Farm Premises ..	131	20	240	—	5
Disposal, Home	32	134	211	—	66
„ Emigration ..	—	—	—	—	—
Building, Land, and Capital Account.	588	—	589	—	—
Total Extra Charges ..	751	229	1,040	—	71
TOTAL EXPENDITURE..	3,778	3,578	5,029	846	2,482
Industrial Departments.					
Profit	67	125	329	141	108
Loss	—	—	—	—	—

APPENDIX No. III. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £ ; cost per head to the nearest tenth of a £.

SCOTLAND—Boys and Girls.					Receipts and Expenditure.
Rossie.	Glasgow.	Parkhead. Rom. Cath.	Kirkle.	Stranraer.	
Boys. 75	Girls. 55	Boys. 199	Boys. 118	Boys. 90	Average Number of Inmates.
7	7	17	14	11	Number of Officers.
£	£	£	£	£	Receipts.
1,220	814	3,214	1,952	1,498	Treasury Grant.
—	—	—	—	—	Subscriptions, Legacies, &c.
475	637	1,197	915	590	County and Borough Rates.
—	13	—	—	—	Voluntary Inmates.
213	—	—	284	75	Hire of Labour.
13	—	50	266	11	Sundries.
1,921	1,464	4,461	3,417	2,174	Total Receipts.
					Expenditure.
362	391	1,039	702	440	Officers' Salaries and Allowances.
524	355	1,242	843	524	Food of Inmates.
241	107	726	475	483	Clothing „
169	308	591	547	461	Washing, Fuel, Light, and Furniture.
48	117	250	354	119	Repairs, Rates, and Taxes.
66	35	95	155	41	Printing and Office Expenes.
9	12	23	49	6	Travelling and Police.
25	35	58	55	8	Medical Expenses and Funerals.
87	139	97	123	11	Sundries, Rewards, &c.
1,531	1,499	4,121	3,303	2,093	Total Ordinary Charges.
20·4	27·2	20·7	28·0	23·2	Cost per Head for Maintenance and Management.
7·0	6·5	6·2	7·1	5·8	Ditto Food.
3·2	1·9	3·6	4·0	5·4	Ditto Clothing.
					Extra Charges.
54	—	141	—	68	Rent, Interest, &c.
97	—	40	78	16	Rent of Farm Premises.
36	69	91	108	68	Disposal, Home.
—	—	—	115	—	„ Emigration
—	—	1,203	—	—	Building, Land, and Capital Account.
187	69	1,475	301	152	Total Extra Charges.
1,718	1,568	5,596	3,604	2,245	Total Expenditure.
					Industrial Departments.
133	125	347	181	373	Profit.
—	—	—	—	—	Loss.

APPENDIX No. III. (E.)—SUMMARY.

REFORMATORY SCHOOLS.—RETURN showing the Expenditure and Cost per Head for the Year 1907.

REFORMATORY SCHOOLS.	Average No. of Inmates.	Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net cost per Head with these additions or deductoins.
ENGLAND—BOYS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bedfordshire.. ..	79	1,670 8 5	—	101 11 10	295 1 4	—	18 13 11
Bradwall	70	1,476 13 1	25 0 0	21 0 0	93 14 11	—	20 8 3
Devon and Exeter ..	55	1,360 3 1	—	23 18 0	150 17 2	—	22 8 5
"Cornwall"	255	6,476 4 3	44 0 7	95 3 0	11 18 11	—	25 17 11
St. John's, R.C. ..	123	2,931 5 5	100 0 0	46 1 8	—	61 16 1	25 10 5
Glamorgan	62	1,441 12 7	27 17 5	41 15 7	213 4 5	—	20 18 9
Hardwicke . ..	98	1,666 17 7	179 8 4	90 12 9	267 16 2	—	17 0 8
Kingswood . ..	137	3,195 9 1	—	88 0 0	—	40 14 0	24 5 3
Hants	45	1,242 0 6	34 0 0	56 14 1	114 2 5	—	27 1 7
Herts	78	1,618 4 9	137 16 9	103 0 11	852 16 9	—	12 18 0
"Akbar"	207	5,176 18 1	—	294 0 0	—	—	26 8 7
Liverpool Farm ..	153	3,156 13 0	155 0 0	144 0 0	—	2 7 7	22 12 0
Farnworth, R.C. ..	123	2,511 0 9	454 5 3	200 5 6	—	254 1 4	27 16 0
Fylde Farm	125	2,887 14 0	—	54 13 0	228 15 10	—	21 14 2
Birkdale Farm, R.C.	197	4,186 16 11	139 3 11	332 9 8	72 9 7	—	23 5 7
Monmouthshire ..	38	748 6 9	—	6 3 0	—	143 4 2	23 12 6
Northampton ..	88	2,070 7 4	50 12 0	128 8 0	251 14 3	—	22 14 0
North-Eastern ..	205	5,434 0 3	—	225 0 4	2,160 0 7	—	17 1 4
Kerrison	100	1,874 8 10	—	118 6 5	88 5 10	—	19 0 11
Redhill	298	7,782 4 7	—	434 9 9	492 3 5	—	26 1 11
Saltley	100	2,231 18 4	—	109 18 1	201 18 0	—	21 8 0
Warwickshire ..	99	2,226 5 4	—	149 14 5	207 9 6	—	21 18 1
Wiltshire	100	2,381 4 6	61 16 3	55 16 1	427 5 10	—	20 14 4
Stoke Farm	81	1,722 11 9	18 19 4	39 4 0	201 5 10	—	19 17 5
Calder Farm	110	2,305 6 1	144 14 0	111 4 3	246 3 10	—	21 0 11
Castle Howard ..	97	3,027 8 2	—	31 18 2	68 11 0	—	30 17 1
Leeds	149	3,349 6 0	75 1 0	133 8 7	125 9 6	—	23 0 9
Market Weighton, R.C.	196	3,988 14 2	—	211 10 0	328 12 2	—	19 15 1

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. III. (E.)—SUMMARY—*continued.*

REFORMATORY SCHOOLS.—RETURN showing the Expenditure, &c.—*continued.*

REFORMATORY SCHOOLS.	Average No. of Inmates.	Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net cost per Head, with these additions or deductions.
ENGLAND.—GIRLS.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Devon and Exeter ..	52	1,336 8 6	—	18 0 0	309 3 6	—	20 2 0
Sunderland	54	1,575 1 3	35 9 6	51 0 0	596 19 0	—	19 14 3
Arno's Court, R. C...	73	1,903 8 8	445 0 0	60 12 8	354 2 8	—	28 3 0
Red Lodge	41	1,153 10 5	66 10 0	51 16 3	131 5 10	—	27 16 4
Liverpool	79	1,537 3 2	—	120 0 0	82 15 11	—	19 18 7
Toxteth Park ..	65	1,489 3 8	—	72 0 0	34 5 3	—	23 9 10
Lancashire, R. C. ..	70	1,796 13 9	120 12 3	64 13 4	396 16 3	—	22 12 11
Ipswich	44	902 0 5	—	20 5 5	80 7 10	—	19 2 8
SCOTLAND.—BOYS.							
Wellington Farm ..	109	2,411 9 5	—	65 12 3	108 1 0	—	21 14 8
Rossie	75	1,531 2 0	53 16 10	36 10 6	132 18 7	—	19 16 11
Parkhead, R. C. ..	199	4,121 1 1	140 11 10	91 11 2	346 18 2	—	20 2 8
Kibble	118	3,303 2 1	—	222 15 9	181 9 9	—	28 6 10
Stranraer	90	2,092 19 6	67 16 1	68 0 0	373 6 2	—	20 12 4
SCOTLAND.—GIRLS.							
Dalry	44	846 3 4	—	—	141 2 8	—	16 0 6
Glasgow	55	1,498 15 7	—	69 9 0	124 18 0	—	26 4 10

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—RETURN OF ADMISSIONS,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
ENGLAND. BOYS.													
"Clio"	209	—	—	—	12	46	—	58	210	—	—	—	1
Chester	74	1	—	2	4	3	—	10	66	—	—	10	3
Birkenhead	82	3	3	8	18	9	—	41	90	—	—	12	—
Stockport	95	—	—	4	10	14	—	28	91	—	—	16	—
Macclesfield	123	—	1	9	22	11	—	43	124	1	—	22	2
Bishop Brown, Roman Cath.	126	3	4	7	12	9	1	36	128	—	—	12	7
"Mount Edgcumbe".. ..	212	—	—	—	9	68	—	77	208	—	—	—	—
Cumberland	134	—	—	5	11	14	1	31	129	—	—	15	1
Chadwick, Roman Catholic	196	—	—	6	29	22	1	58	197	—	—	15	1
Devon and Exeter	71	—	1	6	4	5	—	16	68	—	—	7	8
Dorset	74	—	3	5	9	6	—	23	60	—	—	11	—
Durham	136	—	—	4	16	15	—	35	123	—	—	—	—
Sunderland	109	—	1	1	10	9	—	21	101	—	—	6	8
"Wellesley"	206	—	—	—	3	29	8	40	288	—	—	—	1
Green's Home	24	—	1	4	5	—	—	10	58	—	—	—	—
Gateshead	123	—	1	—	7	9	—	17	116	—	—	4	16
Essex	141	—	2	9	16	9	—	36	143	—	—	14	—
Ilford, Roman Catholic ..	242	1	6	19	35	28	3	92	219	—	—	18	—
Swansea	90	—	—	3	8	9	—	20	65	—	—	4	2
Park Row	80	—	2	5	8	3	—	18	80	—	—	7	—
Clifton	200	—	3	8	10	6	—	27	193	—	—	23	—
National Nautical (late "Formidable").	289	—	—	3	37	46	—	86	321	—	—	—	—
Purbrook	86	—	1	3	10	13	—	27	87	—	—	8	1
Milton	47	—	—	—	1	4	—	5	150	—	—	1	—
Hereford	125	—	1	5	7	7	—	20	125	—	—	21	3
Church Farm	74	—	—	2	9	3	—	14	84	—	—	10	—

APPENDIX No. IV. (A. AND B.)

DISCHARGES, &c., for the Year ending December 31, 1907.

DISCHARGES IN 1907.											UNDER DETENTION ON 31ST DECEMBER, 1907.						SCHOOL
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded.	Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded.	Time unexpired. Sentence Retained in School. expired.	Total.	
																		ENGLAND. BOYS.
7	7	—	52	—	—	-	1	—	—	68	198	—	1	—	—	199		"Clio."
—	—	—	—	—	1	—	—	1	2	17	61	—	2	3	1	67		Chester
3	—	2	—	—	—	—	—	—	—	17	106	—	—	—	—	106		Birkenhead.
4	—	—	—	—	—	—	—	—	—	20	95	—	8	—	—	103		Stockport.
5	—	—	—	—	—	—	—	—	1	30	134	—	2	—	—	136		Macclesfield.
1	—	3	—	—	—	—	—	—	1	24	99	28	10	1	—	138		Bishop Brown, R.C.
8	2	1	54	3	1	1	—	1	—	71	214	—	4	—	—	218		"Mount Edgcumbe."
8	—	—	—	6	—	—	—	1	—	31	124	—	10	—	—	134		Cumberland.
20	1	—	—	8	—	—	—	1	—	46	199	—	9	—	—	208		Chadwick, R.C.
2	—	—	—	—	—	-	—	—	—	17	69	—	1	—	-	70		Devon and Exeter.
2	—	—	—	4	1	1	—	—	—	19	60	—	18	—	-	78		Dorset.
19	—	—	1	4	—	1	—	—	1	26	127	—	17	1	-	145		Durham.
—	—	—	—	—	—	—	2	1	—	17	99	2	12	—	—	113		Sunderland.
3	—	—	57	5	1	—	—	—	—	67	179	—	—	—	—	179		"Wellesley."
—	—	—	-	—	—	—	8	—	—	8	26	-	—	-	—	26		Green's Home.
5	—	—	1	—	—	—	2	1	—	29	111	—	-	—	—	111		Gateshead.
3	—	7	4	5	—	—	—	-	—	33	140	—	3	—	1	144		Essex.
10	—	22	1	24	—	—	—	2	—	77	219	8	28	1	1	257		Ilford, R.C.
8	2	—	—	—	—	—	—	—	-	16	65	—	29	—	—	94		Swansea.
4	—	1	—	—	—	1	-	-	—	13	80	—	5	—	—	85		Park Row.
6	—	—	1	7	-	—	—	1	-	38	185	—	4	—	—	189		Clifton.
14	1	1	57	7	1	—	—	2	—	83	290	-	2	—	—	292		National Nautical (late "Formidable").
4	—	—	2	6	-	1	—	-	—	22	90	—	1	—	—	91		Purbrook.
—	—	15	1	—	—	—	—	—	—	17	33	—	—	—	2	35		Milton.
—	—	—	—	-	—	2	—	—	—	26	110	—	9	—	—	119		Hereford.
—	—	—	—	2	-	—	—	—	-	12	69	—	7		—	76		Church Farm.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
BOYS—*continued.*													
Kent	199	—	1	7	19	16	—	43	184	1	—	5	1
St. Vincent's, Roman Cath...	213	—	—	5	13	8	24	50	200	—	—	22	1
Whitstable, Roman Cath. ..	50	7	3	13	—	—	2	25	54	—	—	—	—
East London	161	—	1	6	13	6	1	27	150	—	—	13	1
Bolton	219	—	1	10	19	10	—	40	204	—	—	18	2
Manchester	185	1	2	15	19	6	—	43	180	—	—	24	—
Barnes' Home	280	2	13	18	17	13	1	64	259	—	—	38	—
St. Joseph's, Roman Cath...	340	1	4	18	23	30	—	76	339	—	—	25	22
Liverpool	222	1	6	13	15	5	2	42	215	—	—	27	2
Grafton Street..	228	4	7	13	25	3	—	52	208	1	—	29	4
St. George's, Roman Cath...	280	—	—	1	36	31	2	70	270	—	—	24	—
St. Anne Street, Rom. Cath.	168	—	3	10	13	9	—	35	150	—	—	7	6
Beacon Lane, Roman Cath.	223	5	12	9	—	—	—	26	199	—	—	8	—
St. Thomas', Roman Catholic	136	1	5	19	9	—	—	34	162	—	—	6	—
Desford	207	—	—	9	27	20	1	57	199	—	—	30	1
Feltham	484	—	—	1	33	70	—	104	480	—	—	66	31
Boys' Home	122	—	1	6	10	2	—	19	139	—	—	8	—
Field Lane	114	1	3	11	14	7	—	36	122	—	—	9	1
Hayes	59	—	—	2	8	10	—	20	59	—	—	—	4
Buxton	58	—	—	1	5	5	—	11	64	—	—	8	—
Newcastle	118	—	—	5	15	8	—	28	114	—	—	1	15
Elswick, Roman Catholic ..	67	—	1	2	1	—	2	6	68	—	—	4	1
Somerset..	185	—	7	7	4	5	3	26	168	1	—	25	3
Cannington, Roman Catholic	100	—	1	3	9	10	—	23	93	—	—	12	1
Stafford	130	—	—	5	9	13	—	27	124	1	—	15	13
Standon Bridge	26	—	—	—	1	1	—	2	89	—	—	4	—
Walsham-le-Willows ..	28	—	2	—	—	1	—	3	39	—	—	1	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1907—*continued.*

DISCHARGES IN 1907.											UNDER DETENTION ON 31ST DECEMBER, 1907.						SCHOOL.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Returned in School. Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	BOYS—*continued.*
16	—	—	2	21	—	—	—	—	—	45	186	—	11	—	—	197	Kent.
1	—	20	—	9	—	—	3	—	—	56	200	—	7	—	—	207	St. Vincent's, R.C.
—	—	—	—	—	—	—	24	1	—	25	50	—	—	—	—	50	Whitstable, R.C.
—	—	1	—	8	1	—	—	—	—	24	149	—	15	—	—	164	East London.
8	—	—	—	8	—	—	—	1	1	38	197	—	24	—	—	221	Bolton.
6	—	—	—	4	—	—	—	—	—	34	184	4	5	1	—	194	Manchester.
4	—	1	7	19	1	—	—	2	—	70	253	—	21	—	—	274	Barnes' Home.
15	—	—	1	3	—	—	—	—	1	67	320	22	4	3	—	349	St. Joseph's, R.C.
8	1	5	—	—	—	—	—	—	—	43	201	13	6	—	1	221	Liverpool.
4	—	10	—	6	1	—	—	—	—	54	200	7	19	—	—	226	Grafton Street.
32	2	8	—	—	—	—	—	1	—	67	277	1	5	—	—	283	St. George's, R.C.
14	1	5	1	—	—	1	1	2	—	38	154	—	11	—	—	165	St. Anne Street, R.C.
9	—	2	—	—	—	—	—	2	—	21	200	13	15	—	—	228	Beacon Lane, R.C.
—	—	8	—	1	—	—	—	—	—	15	149	3	3	—	—	155	St. Thomas', R.C.
5	—	3	—	6	—	—	—	1	—	46	198	—	20	—	—	218	Desford.
—	—	18	34	10	—	—	—	2	—	161	374	2	50	—	1	427	Feltham.
—	—	—	2	4	—	—	—	1	—	15	121	—	5	—	—	126	Boys' Home.
—	—	4	—	5	—	—	—	—	—	18	126	—	6	—	—	132	Field Lane.
—	—	12	—	—	1	—	—	—	—	17	58	—	4	—	—	62	Hayes.
3	—	1	1	—	—	—	—	—	—	13	54	—	1	—	1	56	Buxton.
10	2	—	—	—	2	—	—	1	—	31	114	—	1	—	—	115	Newcastle.
1	—	—	—	—	—	—	2	1	—	9	59	—	5	—	—	64	Elswick, R.C.
7	—	—	—	5	—	—	—	—	—	40	162	—	9	—	—	171	Somerset.
—	—	—	—	6	1	—	—	—	—	20	98	—	5	—	—	103	Cannington, R.C.
5	—	—	—	—	—	—	—	—	—	33	124	—	—	—	—	124	Stafford.
3	—	—	—	—	1	—	—	—	—	8	19	—	1	—	—	20	Standon Bridge.
—	—	2	—	—	—	—	—	—	—	3	26	—	2	—	—	28	Walsham-le-Willows.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
BOYS—*continued.*													
Mayford	200	3	8	9	7	1	12	40	179	1	—	11	2
Clapham Park	31	19	—	—	—	—	—	19	31	—	—	—	—
Acre Lane	2	—	—	—	4	1	1	6	29	—	—	—	—
Portslade	93	—	—	3	10	1	1	15	81	—	—	5	3
Shustoke	143	—	2	7	31	31	—	71	151	—	—	36	8
Harborne	133	1	1	2	18	12	—	34	129	—	—	11	11
"Southampton"	168	—	—	—	15	14	1	30	195	—	—	—	11
Leeds	180	—	—	7	17	16	—	40	173	1	—	24	—
York	151	—	—	2	15	8	—	25	120	—	—	35	—
Middlesbrough	67	—	—	—	3	12	—	15	60	—	—	7	—
Shibden, Roman Catholic ..	162	—	3	7	15	22	—	47	148	—	—	10	1
GIRLS.													
Cold Ash	15	—	—	—	—	1	—	1	30	—	—	1	—
Stockport	68	—	—	2	7	8	—	17	65	—	—	17	—
Plymouth	58	—	—	3	1	3	—	7	55	—	—	6	—
Dorset	76	6	4	2	1	3	—	16	84	—	—	11	—
Sunderland	59	—	1	1	7	7	—	16	59	—	—	13	—
Darlington, Roman Catholic	49	1	—	2	2	4	1	10	118	—	—	10	—
Halstead	64	1	1	1	3	—	—	6	62	—	—	9	1
Bristol	63	1	1	5	6	4	—	17	60	—	—	9	—
Carlton House	58	—	—	3	5	—	—	8	56	1	—	8	—
Portsmouth	38	1	—	4	2	1	—	8	35	—	—	10	—
Sale	101	—	5	8	6	6	—	25	100	—	—	16	—
St. Joseph's, Roman Catholic	163	1	2	5	15	8	—	31	158	—	—	18	—
Liverpool	119	2	3	6	11	9	—	31	100	—	—	15	—
Nile Street	91	2	2	1	6	3	—	14	80	—	—	10	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1907—*continued.*

Discharges in 1907.										Under Detention on 31st December, 1907.						School.
To Friends.																
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	BOYS—*continued.*
—	—	4	—	5	1	—	2	1	—	26	181	—	33	—	—	214	Mayford.
—	—	—	—	—	—	—	19	1	—	20	29	—	1	—	—	30	Clapham Park.
—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	8	Acre Lane.
—	—	4	—	9	—	1	—	—	—	22	80	—	6	—	—	86	Portslade.
—	—	—	—	—	—	—	—	—	—	44	160	—	9	—	1	170	Shustoke.
10	1	—	—	—	—	—	—	—	—	33	133	—	1	—	—	134	Harborne.
8	—	—	28	2	—	—	—	1	1	51	147	—	—	—	—	147	"Southampton."
9	—	—	—	2	—	—	—	—	—	35	177	—	8	—	—	185	Leeds.
6	—	—	—	—	—	—	—	—	—	41	120	—	15	—	—	135	York.
4	1	—	—	—	—	—	—	—	—	12	60	—	10	—	—	70	Middlesbrough.
12	2	23	—	—	2	1	—	1	—	52	148	1	8	—	—	157	Shibden, R.C.
																	GIRLS.
—	—	—	—	—	1	—	—	—	—	2	11	—	—	—	3	14	Cold Ash.
1	—	—	—	—	1	1	—	—	—	20	62	—	3	—	—	65	Stockport.
1	—	—	—	—	1	—	—	—	—	8	56	—	1	—	—	57	Plymouth.
—	—	—	—	—	1	—	—	—	—	12	80	—	—	—	—	80	Dorset.
1	—	—	—	—	1	—	—	—	—	14	59	—	2	—	—	61	Sunderland.
1	—	—	—	—	—	—	—	1	—	12	45	—	2	—	—	47	Darlington, R.C.
—	—	—	—	—	—	—	—	—	—	10	60	—	—	—	—	60	Halstead.
1	—	—	—	—	—	1	—	—	—	11	60	—	9	—	—	69	Bristol.
1	—	—	—	—	—	—	—	1	—	10	53	—	3	—	—	56	Carlton House.
—	—	—	—	—	—	—	—	—	—	10	34	—	2	—	—	36	Portsmouth.
1	—	—	—	—	—	—	—	—	—	17	100	—	9	—	—	109	Sale.
3	3	—	—	—	1	—	—	1	1	27	157	—	9	1	—	167	St. Joseph's, R.C.
3	—	2	—	—	—	—	—	1	—	21	95	—	34	—	—	129	Liverpool.
—	—	3	—	—	—	—	—	—	—	13	81	—	11	—	—	92	Nile Street.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.							Average Number of Inmates, including Voluntary Cases	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
ENGLAND—*continued.*													
GIRLS—*continued.*													
St. Anne's, Roman Catholic	152	6	7	5	7	5	—	30	152	—	—	14	2
St. Elizabeth's, Roman Cath.	101	3	3	3	5	7	—	21	99	—	—	7	1
Blackbrook House, Rom. Ca.	116	1	10	5	9	3	—	28	120	—	—	6	—
Elm House	41	1	1	1	2	6	—	11	40	1	—	5	—
Girls' Home	15	—	—	—	—	2	—	2	31	—	—	—	—
King Edward	106	—	1	5	16	24	1	47	101	—	—	30	—
Gordon House	79	7	4	—	1	—	—	12	70	—	—	10	—
Nazareth House, Rom. Cath.	111	—	3	1	5	8	—	17	113	—	—	13	—
Stamford Hill	9	—	4	2	1	1	—	8	13	—	—	—	—
Newcastle	22	—	1	2	—	2	—	5	21	—	—	3	—
Northumberland	41	1	2	1	3	5	17	29	119	—	—	9	—
Plenmellor	21	—	—	—	—	—	—	—	—	—	—	3	—
Shipton	28	—	—	—	1	—	—	1	33	—	—	6	—
Bath	102	1	—	2	4	4	—	11	81	—	—	23	—
Lichfield	52	1	4	3	3	2	—	13	52	—	—	8	—
Princess Mary's	165	2	5	6	8	4	—	25	179	1	—	17	—
West Croydon, Roman Cath.	157	7	7	8	6	3	—	31	150	—	—	25	—
Coventry	48	1	—	1	3	2	—	7	49	—	—	7	—
Salisbury, Roman Catholic	58	—	1	1	3	2	—	7	105	—	—	9	—
Hull	51	—	—	2	7	4	—	13	47	—	—	7	—
Thorparch	119	—	—	2	10	10	—	22	98	—	—	21	—
Leeds	69	—	5	5	9	5	—	24	77	—	—	11	—
York	59	—	—	1	2	6	—	9	50	—	—	15	—
Yorkshire, Roman Catholic	96	—	1	8	9	12	—	30	101	—	—	17	—
Beckett Home	28	—	—	1	—	1	—	2	29	—	—	2	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1907—*continued.*

Discharges in 1907.											Under Detention on 31st December, 1907.						School.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
																	ENGLAND—*continued.*
																	GIRLS—*continued.*
5	—	—	—	—	—	—	—	2	—	23	150	—	7	2	—	159	St. Anne's, R.C.
1	—	8	—	—	—	—	—	1	—	18	100	—	4	—	—	104	St. Elizabeth's, R.C.
1	—	4	—	—	—	—	—	2	—	13	120	—	9	—	2	131	Blackbrook House, R.C.
—	—	1	—	—	—	—	—	1	—	7	40	—	5	—	—	45	Elm House.
—	—	—	—	—			—	—	—	—	16		1	—	—	17	Girls' Home.
—	—	—	—	—	—	—	—	1	—	31	113	—	9	—	—	122	King Edward.
—	—	—	—	—	—	—	—	—	—	10	71	—	10	—	—	81	Gordon House.
1	—	—	—	—	—	—	—	1	—	15	105	—	8	—	—	113	Nazareth House, R.C.
—	1	—	—	—	—	—	—	—	—	1	16	—	—	—	—	16	Stamford Hill.
1	—	—	—	—	—	—	—	—	—	4	22	—	1	—	—	23	Newcastle.
2	—	—	—	—	—	—	1	—	—	12	57	—	1	—	—	58	Northumberland.
—	—	—	—	—	1	—	17	—	—	21	—	—	—	—	—	—	Plenmellor.
—	—	—	—	—	—	—	—	—	—	6	23	—	—	—	—	23	Shipton.
—	—	—	—	—	—	1	—	—	—	24	80	—	9	—	—	89	Bath.
1	—	1	—	—	—	—	—	—	—	10	51	—	4	—	—	55	Lichfield.
—	—	—	—	—	—	—	—	—	—	17	163	—	10	—	—	173	Princess Mary's.
—	—	—	—	—	—	—	—	—	—	25	145	—	18	—	—	163	West Croydon, R.C.
1	—	—	—	—	1	1	—	—	—	10	45	—	—	—	—	45	Coventry.
—	—	—	—	—	—	—	—	—	—	9	55	—	1	—	—	56	Salisbury, R.C.
1	—	—	—	—	—	—	—	—	—	8	49	—	7	—	—	56	Hull.
6	—	4	—	—	—	1	—	—	—	32	92	—	17	—	—	109	Thorparch.
1	—	—	—	—	—	—	—	—	—	12	74	—	7	—	—	81	Leeds.
1	—	—	—	—	—	1	—	—	—	17	50	—	1	—	—	51	York.
4	—	—	—	—	—	—	—	—	—	21	104	—	1	—	—	105	Yorkshire, R.C.
—	—	3	—	—	—	—	1	—	—	6	22	—	1	—	1	24	Beckett Home

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS.—Return of Admissions, Discharges, &c.,

SCHOOL.	Total Number under Detention 31st December, 1906.	Admissions in 1907.							Average Number of Inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10	10 to 12.	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
SCOTLAND.													
BOYS.													
Aberdeen	127	—	1	8	5	4	—	18	116	—	—	15	—
Ayr	105	—	3	7	8	4	—	22	97	—	—	12	—
Kilmarnock	88	—	—	2	6	6	—	14	76	—	—	4	—
"Empress"	99	—	—	—	28	77	—	105	400	—	—	—	15
Dumfries	94	1	3	4	5	4	—	17	91	—	—	8	4
Edinburgh Original	210	3	4	10	20	5	—	42	196	—	—	18	26
Leith	126	—	7	9	9	3	—	28	134	—	—	5	6
Tranent, Roman Catholic ..	205	—	—	7	11	8	—	26	196	—	—	12	—
Arbroath	28	—	1	3	2	—	—	6	31	—	—	1	1
Dundee	234	—	2	16	13	11	—	42	217	—	—	34	—
"Mars"	400	—	—	—	54	74	—	128	398	—	—	8	7
Mossbank	399	—	9	14	33	32	—	88	382	—	—	27	1
Glasgow R.C. Orphanage ..	229	—	6	19	13	12	—	50	199	—	—	10	15
Slatefield, Roman Catholic ..	169	—	—	6	19	6	—	33	149	—	—	3	14
Perth Feehney	135	—	2	4	7	10	—	23	141	1	—	12	3
Greenock	140	3	9	8	8	2	—	30	138	—	—	10	8
Paisley	117	1	—	3	17	7	1	29	119	—	—	8	2
GIRLS.													
Aberdeen Female	66	—	2	2	3	4	—	11	63	—	—	9	—
Aberdeen, Roman Catholic	150	—	9	11	15	6	1	42	130	—	—	16	1
Ayr	60	—	1	2	5	3	—	11	60	—	—	4	1
Kilmarnock	26	—	—	2	—	6	—	8	25	—	—	3	—
Edinburgh Original	73	1	3	1	6	4	—	15	74	—	—	11	—
Leith	65	—	2	1	2	2	—	7	60	—	—	9	—
Dundee	126	—	2	4	8	7	—	21	118	—	—	16	—
Maryhill	217	—	4	8	9	19	—	40	210	—	—	26	—
Glasgow R.C. Orphanage ..	202	—	8	7	9	8	—	32	189	—	—	19	—

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1907—*continued.*

Discharges in 1907.											Under Detention on 31st December, 1907.						School.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated.	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
																	SCOTLAND. BOYS.
5	—	—	—	2	2	—	—	—	—	24	119	—	—	1	1	121	Aberdeen.
10	—	—	—	—	—	1	—	—	—	23	100	—	4	—	—	104	Ayr.
19	—	—	—	—	—	—	—	1	1	25	71	—	3	3	—	77	Kilmarnock.
8	8	1	73	4	1	—	1	2	—	113	388	—	3	—	—	391	"Empress."
5	2	—	—	—	1	—	1	1	—	32	86	—	1	1	1	89	Dumfries.
1	—	2	—	3	2	—	—	—	—	52	192	—	7	—	1	200	Edinburgh Original.
—	—	—	—	—	—	—	—	—	—	11	134	—	9	—	—	143	Leith.
12	—	—	—	—	4	2	—	1	—	31	189	1	9	—	1	200	Tranent, R.C.
1	—	—	—	—	—	—	—	—	—	3	29	—	2	—	—	31	Arbroath.
9	—	2	—	—	—	—	—	—	—	45	196	23	12	—	—	231	Dundee.
33	—	—	68	4	—	—	—	1	—	121	400	—	6	1	—	407	"Mars."
30	—	—	—	1	—	1	—	2	—	62	375	9	41	—	—	425	Mossbank.
14	—	—	—	—	1	1	—	1	1	43	200	—	34	2	—	236	Glasgow R.C.O.
13	—	—	—	—	—	1	—	—	2	33	151	—	16	2	—	169	Slatefield, R.C.
1	2	1	—	—	—	—	—	—	—	19	139	—	—	—	—	139	Perth Fechney.
—	—	—	—	7	—	—	—	1	—	28	142	—	2	—	—	144	Greenock.
9	3	—	—	1	—	2	—	—	—	25	119	—	—	—	2	121	Paisley.
																	GIRLS.
—	1	—	—	—	—	—	—	—	—	10	65	—	2	—	—	67	Aberdeen Female.
3	—	—	—	—	3	—	—	—	—	23	130	—	39	—	—	169	Aberdeen, Rom. Cath.
—	—	1	—	—	—	—	—	—	—	6	60	—	5	—	—	65	Ayr.
1	—	—	—	—	—	—	—	—	—	4	25	—	5	—	—	30	Kilmarnock.
1	—	—	—	—	—	—	—	—	—	12	73	—	3	—	—	76	Edinburgh Original.
—	—	—	—	—	—	—	—	1	—	10	58	—	4	—	—	62	Leith.
5	—	—	—	—	1	—	1	—	—	23	119	—	4	1	—	124	Dundee.
3	—	4	—	—	—	—	—	2	—	34	201	—	22	—	—	223	Maryhill.
11	—	3	—	—	—	—	—	—	—	33	189	—	11	1	—	201	Glasgow R.C.O.

APPENDIX No. IV. (A. AND B.)

INDUSTRIAL SCHOOLS —Return of Admissions, Discharges, &c..

SCHOOL.	Total Number under Detention 31st December, 1906.	ADMISSIONS IN 1907.							Average Number of inmates, including Voluntary Cases.	Recalled under 1894 Act.		To Employment.	
		Under 6.	6 to 8.	8 to 10.	10 to 12	12 to 14.	Transferred from other Industrial Schools.	Total Admissions.		In School 31st December, 1907.	In Auxiliary Home 31st December, 1907.	Not living with Friends.	Living with Friends.
SCOTLAND—*continued.*													
GIRLS—*continued.*													
Dalbeth, Roman Catholic ..	158	4	3	13	2	7	—	29	149	—	—	23	4
Perth, Ladies	60	—	5	3	3	2	—	13	60	—	—	9	—
Perth, Girls	56	5	2	1	1	2	—	11	60	—	—	9	—
Greenock	45	—	1	3	3	—	—	7	40	—	—	6	—
Stirling	27	—	2	1	—	—	—	3	30	—	—	3	—
Newton Stewart	52	1	1	6	6	4	—	18	48	—	—	4	—

APPENDIX No. IV.

ENGLAND.													
Boys, Protestant	6,938	36	75	243	611	625	32	1,622	7,064	7	—	639	154
Boys, Roman Catholic ..	2,303	18	42	119	195	169	35	578	2,227	—	—	163	40
Girls, Protestant	1,856	27	40	68	124	122	18	399	1,863	3	—	302	1
Girls, Roman Catholic ..	1,003	19	34	38	61	52	1	205	1,116	—	—	119	3
SCOTLAND.													
Boys, Protestant	2,602	8	41	88	215	239	1	592	2,536	1	—	162	73
Boys, Roman Catholic ..	603	—	6	34	43	26	—	109	544	—	—	25	29
Girls, Protestant	873	7	25	34	46	53	—	165	848	—	—	108	1
Girls, Roman Catholic ..	510	4	20	31	26	21	1	103	468	—	—	58	5
Total—Boys	12,505	62	164	486	1,072	1,069	88	2,921	12,430	8	—	989	300
Girls	4,251	57	123	173	258	249	20	880	4,308	3	—	587	10

The figures relating to the Hayes Industrial School for Jewish boys and to the Stamford Hill Industrial
but are included in the total number

APPENDIX No. IV. (A. AND B.)

for the Year ending December 31, 1907—*continued*.

Discharges in 1907.											Under Detention on 31st December, 1907.						School.
To Friends.																	
Of decent Character.	Of questionable Character.	Emigrated	To Sea.	Enlisted.	Discharged on account of Disease.	Committed to Reformatory Schools.	Transferred to other Industrial Schools.	Died.	Absconded. Time expired.	Total.	In School.	In Auxiliary Home.	On Licence.	Absconded. Time unexpired.	Retained in School. Sentence expired.	Total.	
																	SCOTLAND—*continued.*
																	GIRLS—*continued.*
1	—	—	—	—	1	—	—	1	—	30	150	—	7	—	—	157	Dalbeth R.C.
—	—	—	—	—	—	—	—	—	—	9	56	—	8	—	—	64	Perth, Ladies.
—	—	—	—	—	—	—	—	—	—	9	56	1	1	—	—	58	Perth, Girls.
—	—	—	—	—	—	—	—	—	—	6	40	—	6	—	—	46	Greenock.
—	—	—	—	—	—	—	—	—	—	3	27	—	—	—	—	27	Stirling.
—	—	1	—	—	—	—	—	—	—	5	49	—	16	—	—	65	Newton Stewart.

(A. AND B.)—ABSTRACT.

																	ENGLAND.
221	17	80	304	163	12	8	34	19	6	1,657	6,448	28	414	5	8	6,903	Boys, Protestant.
115	6	91	3	51	3	2	30	11	2	517	2,172	76	110	5	1	2,364	Boys, Roman Catholic.
22	—	14	—	—	7	6	19	4	—	375	1,719	—	157	—	4	1,880	Girls, Protestant.
16	3	12	—	—	1	—	—	8	1	163	981	—	59	3	2	1,045	Girls, Roman Catholic.
																	SCOTLAND.
131	15	6	141	22	6	4	2	8	1	571	2,490	32	90	6	5	2,623	Boys, Protestant.
39	—	—	—	—	5	4	—	2	3	107	540	1	59	4	1	605	Boys, Roman Catholic.
10	1	6	—	—	1	—	1	3	—	131	829	1	76	1	—	907	Girls, Protestant.
15	—	3	—	—	4	—	—	1	—	86	469	—	57	1	—	527	Girls, Roman Catholic.
506	38	189	448	236	27	18	66	40	12	2,869	11,708	137	677	20	15	12,557	Total—Boys.
63	5	35	—	—	13	6	20	16	1	756	4,014	1	349	5	6	4,375	Girls.

School for Jewish girls (*see* pages 66 and 70) are not included among either Protestants or Roman Catholics, of boys and girls respectively.

APPENDIX No. IV. (C.)—ABSTRACT.

INDUSTRIAL SCHOOLS.—GENERAL RETURN of ADMISSIONS and DISCHARGES up to December 31, 1907.

—	ENGLAND.				SCOTLAND.				TOTAL.	
	Boys Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys.	Girls.
ADMISSIONS.										
To December 31, 1861 ..	210	—	62	88	398	—	252	—	608	400
1862	172	83	45	48	164	3	75	1	422	169
1863	211	69	51	21	182	28	73	14	490	159
1864	213	32	40	20	173	48	63	16	466	138
1865	291	82	76	26	153	36	92	19	562	213
1866	455	88	103	31	227	44	88	19	814	241
1867	843	176	190	169	366	59	157	23	1,444	539
1868	812	334	196	141	492	221	259	111	1,859	707
1869	979	279	185	134	679	89	183	52	2,026	554
1870	1,016	265	240	86	741	67	198	27	2,089	551
1871	1,126	401	269	161	558	72	254	42	2,157	726
1872	1,287	333	281	149	654	71	152	39	2,237	621
1873	1,592	399	288	116	597	96	179	39	2,684	622
1874	1,340	391	302	62	604	77	164	38	2,412	566
1875	1,388	299	254	87	667	74	188	21	2,428	550
1876	1,535	333	283	80	892	90	257	54	2,850	674
1877	1,777	423	436	144	769	111	260	36	3,080	876
1878	1,722	447	329	167	629	87	210	69	2,920	775
1879	1,860	322	302	98	601	96	202	58	3,243	660
1880	1,769	387	313	138	739	91	171	33	3,435	655
1881	1,919	419	330	135	659	98	185	62	3,675	712
1882	2,174	460	422	150	682	84	133	52	4,117	757
1883	2,282	582	517	182	690	91	174	34	4,469	907
1884	1,933	435	512	179	673	73	159	31	3,114	881
1885	1,876	416	467	120	652	90	175	53	3,034	815
1886	1,872	456	553	122	727	103	234	69	3,158	978
1887	1,911	474	466	151	794	78	221	58	3,257	896
1888	2,135	480	566	187	757	67	185	60	3,439	998
1889	2,264	462	465	186	662	141	190	50	3,469	891
1890	2,102	553	474	199	738	136	158	49	3,529	880
1891	2,066	514	451	221	734	80	179	73	3,444	924
1892	1,932	482	375	232	675	106	170	98	3,195	875
1893	1,993	464	439	182	618	122	190	111	3,197	922
1894	1,903	479	453	229	625	86	177	74	3,093	933
1895	1,917	513	429	238	632	118	150	76	3,180	893
1896	2,048	611	485	266	625	143	164	75	3,427	990
1897	2,044	612	488	264	589	170	150	100	3,415	1,002
1898	2,034	514	456	230	756	149	170	90	3,453	946
1899	1,944	539	418	229	631	126	187	84	3,340	918
1900	1,868	549	384	230	615	157	133	65	3,159	812

APPENDIX No. IV. (C.)—ABSTRACT—*continued.*

—	ENGLAND.				SCOTLAND.				TOTAL.	
	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys, Protestant.	Boys, Roman Catholic.	Girls, Protestant.	Girls, Roman Catholic.	Boys.	Girls.
ADMISSIONS—*cont.*										
1901	2,017	552	455	215	577	104	139	88	3,294	897
1902	1,864	517	385	190	606	118	172	93	3,126	840
1903	1,689	515	392	147	594	119	185	85	2,935	809
1904	1,719	465	372	214	563	134	146	105	2,890	837
1905	1,786	500	418	174	600	121	184	106	3,019	882
1906	1,638	617	409	266	654	137	203	105	3,066	995
1907	1,622	578	399	205	592	109	165	103	2,821	880
Total	73,060	18,951	16,225	7,306	27,898	4,520	8,155	2,759	124,573	34,465
DISCHARGES.										
To employment or service	25,963	7,070	9,444	3,989	10,548	1,900	4,782	1,338	45,501	19,554
Returned to friends ..	16,909	5,826	2,578	1,076	5,945	1,537	1,309	660	30,219	5,625
Emigrated	2,029	888	330	334	229	20	242	16	3,210	931
Sent to sea	11,205	147	—	—	5,229	13	—	—	16,598	—
Enlisted	4,029	458	—	—	512	6	—	—	5,012	—
Discharged on account of disease.	1,004	188	289	134	497	36	128	28	1,726	579
Discharged by special order	46	14	14	1	120	61	81	55	241	151
Committed to reformatory schools or prison.	799	350	162	62	340	18	60	1	1,510	286
Transferred	2,419	574	1,057	248	581	44	214	8	3,618	1,527
Died	1,158	651	407	358	813	210	337	112	2,833	1,214
Absconded (Sentence expired).	596	421	55	59	461	70	95	14	1,548	223
Total	66,157	16,587	14,345	6,261	25,275	3,915	7,248	2,232	112,016	30,090
Under detention, Dec. 31, 1907.	6,903	2,364	1,880	1,045	2,623	605	907	527	12,557	4,375
In school	6,448	2,172	1,719	981	2,490	540	829	469	11,708	4,014
In Working Home	28	76	-	-	32	1	1	—	137	1
On licence	414	110	157	59	90	59	76	57	677	319
Absconded (Sentence unexpired).	5	5	—	3	6	4	1	1	20	5
Retained in school (Sentence expired).	8	1	4	2	5	1	—	—	15	6

NOTE.—The figures relating to the Hayes Industrial School for Jewish Boys and to the Stamford Hill Industrial School for Jewish Girls (see pages 66 and 70) are not included among either Protestants or Roman Catholics, but are included in the total number of boys and girls respectively.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—RETURN of INMATES who have left on showing the NUMBER IN REGULAR EMPLOYMENT, CONVICTED December 31, 1907.

—	ENGLAND.											
	Cold Ash.	"Clio."	Chester.	Birkenhead.	Stockport.		Macclesfield.	Bishop Brown, Roman Catholic.	"Mount Edgcumbe."	Cumberland County.	Chadwick Memorial, Roman Catholic.
	Girls.	Boys.	Boys.	Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Boys.
LEFT DURING THE YEARS 1904, 1905, AND 1906.											
To employment—											
(*a.*) Away from friends ..	14	—	22	38	62	35	68	29	5	53	28
(*b.*) To live with friends ..	—	—	28	3	—	—	3	14	—	7	15
To friends—											
(*a.*) Friends of decent character.	2	43	15	19	30	5	18	13	47	29	73
(*b.*) Friends of questionable character, or otherwise undesirable.	—	18	6	1	—	—	—	1	9	—	3
Emigrated	—	—	—	7	--	—	—	2	1	—	—
To sea	—	162	—	8	—	—	2	—	149	3	2
Enlisted	—	1	—	3	2	—	11	3	7	11	13
Discharged on account of disease.	—	—	—	—	1	1	1	—	1	—	1
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	—	—	—	—	—	—	—
Total	16	224	71	79	95	41	103	62	219	103	135
Since dead	—	3	2	—	2	2†	1†	—	1	3	4
In regular employment ..	12	189	63	71	82	35	98	50	171	97	110
Not in regular employment	—	5*	5	3	5*	1	2	6	15*	1*	11‡
Convicted of crime	—	12	—	1	4	1	—	4	22	2	8
Unknown	4	15	1	4	2	2	2	2	10	—	2
Total	16	224	71	79	95	41	103	62	219	103	135
Percentage in regular employment.	75	86	91	90	88	90	96	81	78	97	84
„ convicted or re-convicted.	—	5	—	1	4	3	—	6	10	2	6
„ unknown ..	25	7	1	5	2	5	2	3	5	—	2

* 1 physically unfit. † 1 imbecile. ‡ 2 physically unfit.

APPENDIX No. IV. (D.)

DISCHARGE or LICENCE for the Years 1904, 1905, and 1906, OF CRIME, &c., since their DISCHARGE or LICENCE to

ENGLAND—*continued.*

Devon and Exeter.		Plymouth.	Dorset.		Durham County.	Sunderland.		"Wellesley."	Gateshead.		Darlington, Roman Catholic.	—
Boys.	Girls.		Boys.	Girls.	Boys.	Boys.	Girls.	Boys.	Boys.	Girls.	Girls.	
												LEFT DURING THE YEARS 1904, 1905, AND 1906.
21	26		34	38	8	21	28	1	14	7	62	To employment— (*a.*) Away from friends.
26	—		—	1	—	46	—	6	46	—	3	(*b.*) To live with friends.
1	3		4	1	88	—	10	11	9	2	6	To friends— (*a.*) Friends of decent character.
—	—		—	—	—	—	—	—	—	—	—	(*b.*) Friends of questionable character, or otherwise undesirable.
—	—		—	—	2	3	3	—	—	1	—	Emigrated.
—	—		—	—	—	—	—	205	5	—	—	To sea.
1	—		5	—	15	—	—	5	—	—	—	Enlisted.
—	—		—	—	—	—	2	2	—	2	—	Discharged on account of disease.
—	—		—	—	—	—	—	—	—	—	1	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
49	29		43	40	113	70	43	230	74	12	72	Total.
1	—		2	1	1	2	—	6	1	—	1†	Since dead.
44	25		35	36	78	52	40	182	68	11	60	In regular employment.
2*	3‡		—	—	17§	11	3*	7*	—	1*	4‡	Not in regular employment.
1	1		4	1	11	5	—	12	2	—	—	Convicted of crime.
1	—		2	2	6	—	—	23	3	—	7	Unknown.
49	29		43	40	113	70	43	230	74	12	72	Total.
92	86		85	92	70	76	93	81	93	92	85	Percentage in regular employment.
2	3		10	3	10	7	—	5	3	—	—	" convicted or re-convicted.
2	—		5	5	5	—	—	10	4	—	10	" unknown.

§ 3 physically unfit. | 2 imbecile.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*									
	Essex.	"Shaftesbury."	Ilford, Roman Catholic.	Halstead.	Swansea.	Park Row.	Clifton.	National Nautical, late "Formidable."	Bristol.	Carlton House.
	Boys.	Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Girls.	Girls.
LEFT DURING THE YEARS 1904, 1905, AND 1906.										
To employment— (*a.*) Away from friends ..	76	24	126	27	18	37	60	2	33	24
(*b.*) To live with friends ..	—	—	15	—	9	—	—	33	—	—
To friends— (*a.*) Friends of decent character.	4	20	44	—	32	8	23	48	4	—
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	—	8	—	—	11	—	—
Emigrated	11	40	100	1	—	1	—	2	—	—
To sea	9	65	5	—	1	—	3	184	—	—
Enlisted	2	20	33	—	—	1	27	10	—	—
Discharged on account of disease.	1	—	2	—	—	—	1	5	3	—
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	2	1	—	1	—	—	—	—	—
Total	103	171	326	28	69	47	114	295	40	24
Since dead	—	1*	3	—	2	—	3	9	1	—
In regular employment ..	92	137	279	26	59	45	95	187	32	22
Not in regular employment	4	10	14†	2	1	1	9‡	32§	3†	—
Convicted of crime	1	7	10	—	6	1	6	18	—	—
Unknown	6	16	20	—	1	—	1	49	4	2
Total	103	171	326	28	69	47	114	295	40	24
Percentage in regular employment.	89	81	86	93	88	96	86	65	82	92
" convicted or reconvicted.	1	4	3	—	9	2	5	6	—	—
" unknown ..	6	9	6	—	1	—	1	17	10	8

* 1 imbecile. † 2 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1904, 1905, and 1906, showing the Number in Regular Employment, or Licence to December 31, 1907—*continued.*

ENGLAND—*continued.*

Purbrook.	Milton.	Portsmouth and South Hants.	Hereford.	Church Farm.	Kent County.	East London.	St. Vincent's, Hartford, Roman Catholic	Bolton.	Manchester.	—
Boys.	Boys.	Girls.	Boys.	Boys.	Boys.	Boys.	Boys.	Boys.	Boys	
										LEFT DURING THE YEARS 1904, 1905, AND 1906.
										To employment—
36	11	11	70	41	20	50	55	80	74	(*a.*) Away from friends.
4	9	—	5	1	—	5	3	—	1	(*b.*) To live with friends.
										To friends—
8	15	—	2	—	64	—	7	26	29	(*a.*) Friends of decent character.
—	—	—	—	—	1	—	—	2	—	(*b.*) Friends of questionable character, or otherwise undesirable.
1	14	—	—	4	—	5	47	—	—	Emigrated.
—	—	—	—	—	5	—	2	—	—	To sea.
13	4	—	5	5	42	29	26	25	14	Enlisted.
—	—	—	—	—	—	—	1	—	1	Discharged on account of disease.
—	—	—	—	—	—	—		—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
62	53	11	82	51	132	89	141	133	119	Total.
—	—	—	—	—	—	1*	2	2	—	Since dead.
59	47	11	80	49	112	83	112	127	112	In regular employment.
1	2	—	1	2§	9†	1	6	1§	4†	Not in regular employment.
—	2	—	—	—	9	3	1	1	2	Convicted of crime.
2	2	—	1	—	2	1	20	2	1	Unknown.
62	53	11	82	51	132	89	141	133	119	Total.
95	89	100	98	96	85	94	81	97	94	Percentage in regular employment.
—	4	—	—	—	7	3	1	1	2	„ convicted or reconvicted.
3	4	—	1	—	2	1	14	2	1	„ unknown.

‡ 3 physically unfit. § 1 physically unfit.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*										
	Sale.	Barnes' Home.	St. Joseph's, Roman Catholic.		Liverpool.		Grafton Street.	Nile Street.	St. George's, Roman Catholic.	St. Anne Street, Roman Catholic.	Beacon Lane, Roman Catholic.
	Girls.	Boys.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.	Boys.
LEFT DURING THE YEARS 1904, 1905, AND 1906.											
To employment— (*a.*) Away from friends ..	56	93	102	56	60	75	75	45	41	40	33
(*b.*) To live with friends ..	—	—	80	—	19	2	27	—	5	2	2
To friends— (*a.*) Friends of decent character.	4	18	56	9	31	4	11	2	90	42	30
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	2	5	—	—	—	—	8	5	—
Emigrated	—	1	—	—	8	10	15	5	16	3	6
To sea	—	9	2	—	3	—	—	—	—	12	—
Enlisted	—	62	12	—	—	—	6	—	1	11	3
Discharged on account of disease.	1	—	2	—	—	—	2	1	—	1	—
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	3	—	—	—	—	—	—	1	—
Total	61	183	259	70	121	91	136	53	161	117	74
Since dead	1	2†	3	1	1	2	—	—	3	3	1
In regular employment ..	55	171	217	66	107	82	124	51	146	79	64
Not in regular employment	4*	3‡	15*	—	5	3§	6‡	1‡	10	14‖	6§
Convicted of crime	—	1	22	—	3	—	4	—	2	3	—
Unknown..	1	6	2	3	5	4	2	1	—	18	3
Total	61	183	259	70	121	91	136	53	161	117	74
Percentage in regular employment.	92	94	85	96	89	92	91	96	92	69	88
„ convicted or re-convicted.	—	1	9	—	2	—	3	—	1	3	—
„ unknown ..	2	3	1	4	4	4	1	2	—	16	4

* 3 physically unfit. † 2 imbecile. ‡ 1 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1904, 1905, and 1906, showing the Number in Regular Employment, or Licence to December 31, 1907—*continued.*

ENGLAND—*continued.*

St. Thomas', Roman Catholic.		St. Anne's, Roman Catholic.		St. Elizabeth's, Roman Catholic.	Blackbrook House, Roman Catholic.	Desford.	Feltham.	Boys' Home.	Field Lane.	Hayes.	Gordon House.	Elm House.	Girls' Home.	—
Boys.	Girls.	Girls.	Girls.	Boys.	Boys.	Boys.	Boys.	Boys.	Boys.	Girls.	Girls.	Girls.	Girls.	
														LEFT DURING THE YEARS 1904, 1905, AND 1906.
22	42	34	39	65	111	41	58	3	24	23	10	To employment— (*a.*) Away from friends.
—	1	6	2	20	40	7	7	9	—	—	1	(*b.*) To live with friends.
4	13	6	2	22	4	—	4	—	—	—	2	To friends— (*a.*) Friends of decent character.
—	2	—	—	—	+	—	—	—	—	1	+	(*b.*) Friends of questionable character, or otherwise undesirable.
9	2	12	5	5	10	1	3	24	—	—	—	Emigrated.
1	—	—	—	—	51	7	2	1	—	—	—	To sea.
1	—	—	—	23	28	20	17	—	—	—	—	Enlisted.
1	3	—	—	1	—	2	—	—	—	—	—	Discharged on account of disease.
—	—	—	—	—	—	—	1	—	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
38	63	58	48	136	244	78	92	37	24	24	13	Total.
1¶	1	2¶	—	1	1	2¶	1	—	—	—	1	Since dead.
34	54	54	45	114	203	64	76	29	22	20	7	In regular employment.
—	4*	—	1	2§	11§	7§	7§	1	1‡	1‡	4§	Not in regular employment.
—	—	—	—	14	17	—	6	2	—	—	—	Convicted of crime.
3	4	2	2	5	12	5	2	5	1	3	1	Unknown.
38	63	58	48	136	244	78	92	37	24	24	13	Total.
92	87	96	94	84	84	84	84	78	92	83	58	Percentage in regular employment.
—	—	—	—	10	7	—	7	5	—	—	—	„ convicted or reconvicted.
8	6	4	4	4	5	7	2	14	4	12	8	„ unknown.

§ 2 physically unfit. ‖ 4 physically unfit. ¶ 1 imbecile.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c. since their Discharge

—	ENGLAND—*continued.*											
	King Edward.	Nazareth House, Roman Catholic.	Stamford Hill.	Buxton.	Newcastle.		Northumberland Village Homes.	Plenmellor.	Elswick, Roman Catholic.	Shipton-under-Wychwood.	Somerset.	
	Girls.	Girls.	Girls.	Boys.	Boys.	Girls.	Girls.	Girls.	Boys.	Girls.	Boys.	
LEFT DURING THE YEARS 1904, 1905, AND 1906.												
To employment— (*a.*) Away from friends ..	73	51	1	38	9	10	38	9	21	11	86	
(*b.*) To live with friends ..	—	—	—	3	52	—	9	—	—	—	1	
To friends— (*a.*) Friends of decent character.	2	2	1	18	4	3	14	1	7	1	9	
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	1	2	—	—	—	—	—	—	
Emigrated	8	—	—	—	—	—	2	—	—	3	—	
To sea	—	—	—	3	—	—	—	—	—	—	—	
Enlisted	—	—	—	—	—	—	—	—	—	—	9	
Discharged on account of disease.	1	1	—	—	1	—	1	—	1	1	1	
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	1	—	—	—	—	—	—	—	—	—	—	
Total	85	54	2	63	68	13	64	10	29	16	106	
Since dead	2*	—	—	1	1	—	—	—	1	1	1	
In regular employment ..	68	49	1	54	60	10	45	9	21	12	100	
Not in regular employment	4†	1	—	7†	3‡	1	3†	—	—	—	2	
Convicted of crime	3	—	—	1	4	—	—	—	—	—	1	
Unknown	8	4	1	—	—	2	16	1	7	3	2	
Total	85	54	2	63	68	13	64	10	29	16	106	
Percentage in regular employment.	82	91	50	87	90	77	70	90	75	80	95	
„ convicted or re-convicted.	4	—	—	2	6	—	—	—	—	—	1	
„ unknown ..	10	7	50	—	—	15	25	10	25	20	2	

* 1 imbecile. † 2 physically unfit. ‡ 1 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1904, 1905, and 1906, showing the Number in Regular Employment, or Licence to December 31, 1907—*continued.*

ENGLAND—*continued.*

Oannington, Roman Catholic.		Bath.	Stafford.		Standon Bridge.	Walsham-le-Willows.	Mayford.	Princess Mary Village Homes.	St. Mary's, West Croydon, Roman Catholic.	Portslade.	Shustoke.	Harborne.	Coventry.	
Boys.	Girls.		Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	Girls.	Boys.	Boys.	Boys.	Girls.	
														LEFT DURING THE YEARS 1904, 1905, AND 1906.
30	70		48	37	17	3	45	57	68	11	106	32	17	To employment— (*a.*) Away from friends.
11	—		28	1	—	—	12	—	—	5	37	28	—	(*b.*) To live with friends.
2	2		9	6	3	5	—	4	—	4	1	43	2	To friends— (*a.*) Friends of decent character.
—	—		1	1	—	—	—	—	—	—	—	2	—	(*b.*) Friends of questionable character, or otherwise undesirable.
—	—		4	—	3	7	2	—	—	11	2	2	—	Emigrated.
1	—		—	—	—	—	—	—	—	1	—	—	—	To sea.
19	—		15	—	2	4	30	—	—	28	7	—	—	Enlisted
1	1		—	—	—	—	2	—	4	—	1	—	—	Discharged on account of disease.
—	—		—	—	—	—	—	—	—	1	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
61	73		105	45	25	19	91	61	72	61	154	107	19	Total.
—	2§		1	2*	1*	—	—	—	2	—	3	—	—	Since dead.
40	63		95	35	21	16	86	52	68	52	132	95	18	In regular employment.
4	4†		2†	4	1	—	1‡	7†	2‡	4	5	5‖	1	Not in regular employment.
1	3		4	2	1	—	2	—	—	2	8	6	—	Convicted of crime.
19	1		3	2	1	3	2	2	—	3	6	1	—	Unknown.
64	73		105	45	25	19	91	61	72	61	154	107	19	Total.
62	89		91	81	87	84	95	85	97	85	87	89	95	Percentage in regular employment.
2	4		4	5	4	—	2	—	—	3	5	6	—	„ convicted or reconvicted.
30	1		3	5	4	16	—	3	—	5	4	1	—	„ unknown.

§ 2 imbecile. ‖ 3 physically unfit.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	ENGLAND—*continued.*												
	Salisbury, Roman Catholic.	Hull.	"Southampton."	Leeds.		Thorparch.	York.		Middlesbrough.	Shibden, Roman Catholic.	Yorkshire, Roman Catholic.	Beckett Home.	
	Girls.	Girls.	Boys.	Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Boys.	Girls.	Girls.	
LEFT DURING THE YEARS 1904, 1905, AND 1906.													
To employment—													
(*a.*) Away from friends ..	38	36	5	71	35	60	81	47	29	31	53	13	
(*b.*) To live with friends ..	1	—	13	—	—	—	—	—	2	—	—	—	
To friends—													
(*a.*) Friends of decent character.	1	9	9	29	7	11	9	1	9	27	6	—	
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	2	—	1	—	—	—	—	3	1	—	
Emigrated	2	—	—	13	8	3	—	—	—	56	—	1	
To sea	—	—	90	—	—	—	—	—	—	—	—	—	
Enlisted	—	—	26	8	—	—	1	—	1	—	—	—	
Discharged on account of disease.	—	1	9	—	1	—	—	1	1	4	—	—	
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	—	—	1	—	—	1	—	—	
Total	42	46	154	121	52	74	92	49	42	122	60	14	
Since dead	—	1*	1	2	1	—	—	1	—	4	2	1	
In regular employment ..	41	43	120	109	46	65	87	38	38	110	56	11	
Not in regular employment	—	—	12†	5	3‡	5	3†	3	1†	3	1†	2	
Convicted of crime	—	1	7	4	2	2	2	1	3	1	—	—	
Unknown	1	1	14	1	—	2	—	6	—	4	1	—	
Total	42	46	154	121	52	74	92	49	42	122	60	14	
Percentage in regular employment.	98	96	78	92	90	88	95	79	90	93	97	85	
„ convicted or re-convicted.	—	2	5	3	4	3	2	2	7	1	—	—	
„ unknown.. ..	2	2	9	1	—	3	—	12	—	3	2	—	

* 1 imbecile. † 1 physically unfit. ‡ 3 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1904, 1905, and 1906, showing the Number in Regular Employment, or Licence to December 31, 1907—*continued.*

SCOTLAND.											
Aberdeen.	Aberdeen Female.	Aberdeen, Roman Catholic.	Ayr.		Kilmarnock.		"Empress."	Dumfries.	Edinburgh, Original.		—
Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	
											LEFT DURING THE YEARS 1904, 1905, AND 1906.
46	29	52	31	27	13	6	—	22	49	33	To employment— (*a.*) Away from friends.
7	—	5	1	—	2	3	38	3	45	—	(*b.*) To live with friends.
28	3	17	28	5	28	3	52	25	4	4	To friends— (*a.*) Friends of decent character.
6	2	1	3	1	—	—	29	5	—	—	(*b.*) Friends of questionable character, or otherwise undesirable.
3	—	—	1	4	—	—	3	4	—	10	Emigrated.
—	—	—	1	—	—	—	208	1	—	—	To sea.
—	—	—	—	—	—	—	9	3	9	—	Enlisted.
1	—	1	—	3	3	—	5	1	1	—	Discharged on account of disease.
—	—	—	—	—	1	—	1	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
90	34	76	65	40	47	12	345	64	108	47	Total.
1	2*	—	—	1*	—	—	6	—	1	—	Since dead.
82	27	74	54	28	40	11	293	48	96	21	In regular employment.
4	3	2†	1	5§	4‖	1	11§	7†	2†	1†	Not in regular employment.
3	—	—	7	2	3	—	30	3	9	—	Convicted of crime.
—	2	—	3	4	—	—	5	6	—	25	Unknown.
90	34	76	65	40	47	12	345	64	108	47	Total.
93	84	97	83	72	85	92	86	75	90	45	Percentage in regular employment.
3	—	—	11	5	6	—	9	5	8	—	„ convicted or reconvicted.
—	6	—	5	10	—	-	1	9	-	53	„ unknown.

§ 4 physically unfit. ‖ 2 physically unfit.

APPENDIX No. IV. (D.)

INDUSTRIAL SCHOOLS.—Return of Inmates who have left on Discharge or Licence convicted of Crime, &c., since their Discharge

—	SCOTLAND—*continued.*										
	Leith.		St. Joseph's Tranent, Roman Catholic.	Arbroath.	Dundee.		"Mars."	Glasgow, Mossbank.	Glasgow, Maryhill.	Glasgow, Roman Catholic Orphanage.	
	Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	Boys.	Boys.	Girls.	Boys.	Girls.
LEFT DURING THE YEARS 1904, 1905, AND 1906.											
To employment—											
(*a.*) Away from friends ..	46	28	45	1	98	58	31	113	126	30	63
(*b.*) To live with friends ..	23	—	2	2	—	—	32	4	6	64	25
To friends—											
(*a.*) Friends of decent character.	2	1	57	2	20	5	121	151	12	45	27
(*b.*) Friends of questionable character, or otherwise undesirable.	—	—	—	—	—	—	—	4	1	—	—
Emigrated	—	—	2	—	1	—	—	—	13	—	—
To sea	1	—	2	—	—	—	155	—	—	—	—
Enlisted	—	—	1	—	—	—	12	9	—	—	—
Discharged on account of disease.	1	—	4	2	2	—	3	1	1	3	1
Absconders, discharged by expiration of sentence, or warrant of Secretary of State.	—	—	—	—	1	—	1	—	—	—	—
Total	73	29	113	7	122	63	355	282	159	142	115
Since dead	3	1	5	—	1	1‡	1	4	2	3	7
In regular employment ..	66	25	73	7	108	51	304	243	148	119	102
Not in regular employment	3*	2	11†	—	—	5†	11†	7*	8§	6†	3†
Convicted of crime	1	—	8	—	3	—	20	23	1	14	1
Unknown	—	1	16	—	10	6	19	5	—	—	2
Total	73	29	113	7	122	63	355	282	159	142	115
Percentage in regular employment.	94	89	68	100	89	82	86	87	94	86	94
convicted or re-convicted.	1	—	7	—	3	—	6	8	1	10	1
„ unknown ..	—	4	15	—	8	10	5	2	—	—	2

* 2 physically unfit. † 1 physically unfit.

APPENDIX No. IV. (D.)

for the Years 1904, 1905, and 1906, showing the Number in Regular Employment, or Licence to December 31, 1907—*continued.*

SCOTLAND—*continued.*

Glasgow, Slatefield, Roman Catholic.		Dalbeth, Roman Catholic.	Perth Feehney.	Perth Ladies'.	Perth Girls'.	Greenock.		Paisley		Stirling.	Newton Stewart.	—
Boys.	Girls.		Boys.	Girls.	Girls.	Boys.	Girls.	Boys.	Girls.	Girls.	Girls	
												LEFT DURING THE YEARS 1904, 1905, AND 1906.
17	71		46	11	26	24	17	21	17	9	22	To employment— (*a.*) Away from friends.
23	3		17	1	—	40	4	14	1	—	1	(*b.*) To live with friends.
65	8		12	1	—	8	—	26	9	4	—	To friends— (*a.*) Friends of decent character.
1	—		—	1	—	—	—	5	2	—	—	(*b.*) Friends of questionable character, or otherwise undesirable.
—	2		—	—	—	—	—	—	—	—	—	Emigrated.
—	—		—	—	—	—	—	—	—	—	—	To sea.
—	—		—	—	—	7	—	2	—	—	—	Enlisted.
1	5		7	1	—	1	—	1	2	—	—	Discharged on account of disease.
—	—		—	—	—	2	—	—	—	—	—	Absconders, discharged by expiration of sentence, or warrant of Secretary of State.
107	89		82	15	26	82	21	69	31	13	23	Total.
1	6‡		1	1	—	1	—	3	1	—	—	Since dead.
91	82		73	13	25	70	18	51	26	12	21	In regular employment.
6	1†		5§	1†	1	1	—	3	1†	1	—	Not in regular employment.
8	—		1	—	—	5	—	5	—	—	—	Convicted of crime.
1	—		2	—	—	5	3	7	3	—	2	Unknown.
107	89		82	15	26	82	21	69	31	13	23	Total.
86	99		90	93	96	86	86	77	87	92	91	Percentage in regular employment.
8	—		1	—	—	6	—	8	—	—	—	„ convicted or re-convicted.
1	—		2	—	—	6	14	11	10	—	9	„ unknown.

‡ 1 imbecile. § 3 physically unfit.

APPENDIX No. IV. (D.)—ABSTRACT.

INDUSTRIAL SCHOOLS.—RETURN of DISCHARGES, &c., for Years 1904, 1905, and 1906.

—	ENGLAND.				SCOTLAND.				TOTAL.	
	BOYS, Protestant.	BOYS, Roman Catholic.	GIRLS, Protestant.	GIRLS, Roman Catholic.	BOYS, Protestant.	BOYS, Roman Catholic.	GIRLS, Protestant.	GIRLS, Roman Catholic.	BOYS.	GIRLS.
MODE OF DISCHARGE.										
To employment—										
(*a.*) Away from friends ..	2,033	558	990	443	541	92	409	185	3,224	2,027
(*b.*) To live with friends ..	542	147	14	13	228	89	16	33	1,006	76
To friends—										
(*a.*) Friends of decent character.	835	395	103	45	507	167	47	52	1,904	247
(*b.*) Friends of doubtful character, or otherwise undesirable.	64	22	3	8	52	1	7	1	139	19
Emigrated	202	239	45	21	11	2	27	2	454	95
To sea	968	25	—	—	366	2	—	—	1,361	—
Enlisted	545	122	—	—	51	1	—	—	719	—
Discharged on account of disease.	33	14	17	8	29	8	7	7	84	39
Absconders, discharged by expiration of sentence, or by warrant of Secretary of State.	6	6	1	1	6	—	—	—	18	2
Total	5,228	1,528	1,173	539	1,791	362	513	280	8,909	2,505
SUBSEQUENT CHARACTER.										
Since dead	62*a*	25*b*	19*c*	9*d*	22	9	9*e*	13*b*	118*f*	50*g*
In regular employment ..	4,467	1,262	1,003	493	1,535	283	426	258	7,547	2,180
Not in regular employment ..	244*h*	89*i*	64*j*	13*k*	59*l*	23*m*	29*n*	6*o*	415*p*	112*q*
Convicted of crime	224	52	17	—	113	30	3	1	419	21
Unknown	231	100	70	24	62	17	46	2	410	142
Total	5,228	1,528	1,173	539	1,791	362	513	280	8,909	2,505
Percentage in regular employment.	86	84	87	93	87	80	84	97	86	89
„ not in regular employment.	5	6	6	2	3	7	6	2	4·7	4
„ convicted or re-convicted.	4	3	1	—	6	8	1	—	4·7	1
„ unknown ..	5	7	6	5	4	5	9	1	4·6	6

a 9 imbecile *b* 1 imbecile. *c* 6 imbecile. *d* 2 imbecile. *e* 3 imbecile. *f* 10 imbecile. *g* 12 imbecile. *h* 41 physically unfit. *i* 13 physically unfit. *j* 26 physically unfit. *k* 7 physically unfit. *l* 16 physically unfit. *m* 2 physically unfit. *n* 11 physically unfit. *o* 3 physically unfit. *p* 72 physically unfit. *q* 47 physically unfit.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS,

RETURN of RECEIPTS and EXPENDITURE for 1907.

APPENDIX No. IV. (E.)

Industrial Schools, Return of Receipts

Note.—Items of Receipts and Expenditure are given to

Receipts and Expenditure.	England.					
	Cold Ash.	"Clio."	Chester.	Birken-head.	Stockport.	Stockport.
Average Number of Inmates	Girls. 30	Boys. 210	Boys. 66	Boys. 90	Boys. 91	Girls. 65
Number of Officers	5	18	14	10	13	6
Receipts.	£	£	£	£	£	£
Treasury Grant	131	2,176 *41	649	789	918	617
Subscriptions, Legacies, &c.	345	352	—	127	86	42
County and Borough Rates ..	75	812	241	1	796	493
Education Authority Rates	81	1,187	250	648	80	106
Parochial Authorities ..	—	46	1	—	60	36
Voluntary Inmates	11	238	26	52	27	20
Hire of Labour	—	—	9	7	165	14
Sundries	—	103	—	36	9	1
Total Receipts ..	643	4,955	1,177	1,660	2,141	1,329
Expenditure.						
Officers' Salaries and Allowances.	226	1,589	586	624	728	346
Food of Inmates	157	1,216	492	415	662	373
Clothing	33	553	232	218	293	256
Washing, Fuel, Light, and Furniture.	115	508	213	183	432	201
Repairs, Rates, and Taxes ..	19	151	174	158	236	191
Printing and Office Expenses	17	295	38	35	48	30
Travelling and Police	10	81	6	16	21	13
Medical Expenses and Funerals.	14	97	7	30	2	2
Sundries	58	119	26	25	14	42
Total Ordinary Charges	649	4,589	1,764	1,704	2,436	1,454
Cost per Head for Maintenance and Management.	21·6	21·8	26·6	18·9	26·8	22·4
Ditto Food	5·2	5·8	7·5	4·6	7·3	5·7
Ditto Clothing	1·1	2·6	3·5	2·4	3·2	3·9
Extra Charges.						
Rent of School and Interest	—	—	—	—	79	59
„ Farm Premises ..	—	—	5	—	—	—
Disposal, Home Service ..	6	356	41	44	39	44
„ Emigration ..	—	—	—	24	—	—
Building & Capital Account	—	—	—	—	—	—
Total Extra Charges ..	6	356	46	68	118	103
Total Expenditure	655	4,945	1,800	1,772	2,554	1,557
Industrial Departments.						
Profit	12	68	69	77	338	139
Loss	—	—	—	—	—	—

* Admiralty grant for Gunnery Instructor.

APPENDIX No. IV. (E.)

and EXPENDITURE of, for 1907.

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND.						RECEIPTS AND EXPENDITURE.
MACCLESFIELD.	BISHOP BROWN. Rom. Cath.	"MOUNT EDGCUMBE."	CUMBERLAND COUNTY.	CHADWICK. Rom. Cath.	DEVON AND EXETER.	
Boys. 124	Boys. 128	Boys. 208	Boys. 129	Boys. 197	Boys. 68	Average Number of Inmates
14	13	19	16	18	10	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
1,292	1,206	{ 2,377 / 255 }	1,093	2,048	537	Treasury Grant.
1,732	—	764	—	—	25	Subscriptions, Legacies, &c.
1,187	1,107	300	2,288	349	344	County and Borough Rates.
588	381	2,382	—	1,559	475	Education Authority Rates.
18	23	118	—	—	18	Parochial Authorities.
—	12	53	—	—	31	Voluntary Inmates.
—	180	—	—	—	72	Hire of Labour.
202	33	30	—	60	—	Sundries.
5,019	2,942	6,079	3,381	4,016	1,502	TOTAL RECEIPTS.
						EXPENDITURE.
697	429	1,784	1,063	1,022	396	Officers' Salaries and Allowances.
877	874	1,529	701	1,457	500	Food of Inmates.
350	524	637	362	493	250	Clothing.
467	174	194	554	376	221	Washing, Fuel, Light, and Furniture.
316	268	488	258	328	119	Repairs, Rates, and Taxes.
190	40	165	77	100	28	Printing and Office Expenses.
4	59	89	20	53	12	Travelling and Police.
35	40	59	78	89	24	Medical Expenses and Funerals.
235	123	170	56	203	19	Sundries.
3,171	2,531	5,115	3,169	4,121	1,569	Total Ordinary Charges.
25·6	19·8	24·6	24·6	20·9	23·1	Cost per Head for Maintenance and Management.
7·1	6·8	7·3	5·4	7·4	7·4	Ditto Food.
2·8	4·1	3·1	2·8	2·5	3·7	Ditto Clothing.
						Extra Charges.
20	251	—	—	—	17	Rent of School and Interest.
—	—	—	—	—	9	„ Farm Premises.
120	59	111	126	164	39	Disposal, Home Service.
—	38	—	—	—	—	„ Emigration.
1,305	5	—	63	—	—	Building & Capital Account.
1,445	353	111	189	164	65	Total Extra Charges.
4,616	2,884	5,226	3,358	4,285	1,634	TOTAL EXPENDITURE.
						Industrial Departments.
71	221	6	26	146	190	Profit.
—	—	—	—	—	—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	PLYMOUTH.	DORSET COUNTY.	DORSET.	DURHAM COUNTY.	SUNDERLAND.	"WELLESLEY."
Average Number of Inmates	Girls. 55	Boys. 60	Girls. 84	Boys. 123	Boys. 101	Boys. 286
Number of Officers	6	10	10	15	10	22
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	544	521	713	1,011	1,233	2,238
Subscriptions, Legacies, &c...	26	20	190	—	24	376
County and Borough Rates..	447	900	788	2,210	361	253
Education Authority Rates..	252	—	13	365	343	1,362
Parochial Authorities ..	—	—	35	—	—	1,794
Voluntary Inmates	—	—	123	—	—	200
Hire of Labour	—	128	—	69	28	3
Sundries	3	—	9	5	45	528
TOTAL RECEIPTS ..	1,272	1,569	1,871	3,660	2,034	6,754
EXPENDITURE.						
Officers' Salaries and Allowances.	291	431	520	1,175	522	1,896
Food of Inmates	404	343	409	725	658	1,913
Clothing	151	133	188	374	323	960
Washing, Fuel, Light, and Furniture.	228	234	296	830	206	761
Repairs, Rates, and Taxes ..	100	113	269	314	65	588
Printing and Office Expenses	26	55	43	40	63	356
Travelling and Police ..	9	10	23	—	13	43
Medical Expenses and Funerals.	15	18	196	68	39	167
Sundries	58	22	30	170	7	172
Total Ordinary Charges	1,282	1,359	1,974	3,696	1,896	6,856
Cost per Head for Maintenance and Management.	23·3	22·6	23·5	30·0	18·8	24·0
Ditto Food	7·3	5·7	4·9	5·9	6·5	6·7
Ditto Clothing	2·7	2·2	2·2	3·0	3·2	3·4
Extra Charges.						
Rent of School and Interest	57	30	8	—	32	—
„ Farm Premises ..	—	8	—	—	—	—
Disposal, Home Service ..	57	76	30	24	41	216
„ Emigration ..	—	—	—	—	—	—
Building & Capital Account	—	38	—	—	118	208
Total Extra Charges ..	114	152	38	24	191	424
TOTAL EXPENDITURE ..	1,396	1,511	2,012	3,720	2,087	7,280
Industrial Departments.						
Profit	117	14	—	241	—	719
Loss	—	—	—	—	78	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*

Green's Home.	Gateshead.	Sunderland.	Darlington. Rom. Cath.	Essex.	Ilford. Rom. Cath.	Receipts and Expenditure.
Boys. 58	Boys. 116	Girls. 59	Girls. 118	Boys. 143	Boys. 219	Average Number of Inmates.
5	16	5	14	15	21	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
264	1,473	670	413	1,218	2,288	Treasury Grant.
—	1,145	—	48	414	13	Subscriptions, Legacies, &c.
49	36	190	101	1,754	311	County and Borough Rates.
143	611	205	330	281	2,091	Education Authority Rates.
513	—	—	457	28	—	Parochial Authorities.
26	3		224	37	3	Voluntary Inmates.
—	91	27	—	—	224	Hire of Labour.
—	—	3	4	111	—	Sundries.
995	3,359	1,095	1,577	3,843	4,930	TOTAL RECEIPTS.
						EXPENDITURE.
282	1,047	314	381	971	1,262	Officers' Salaries and Allowances.
299	554	322	699	827	1,327	Food of Inmates.
241	306	135	296	536	708	Clothing.
97	565	140	319	475	550	Washing, Fuel, Light, and Furniture.
87	171	84	139	342	491	Repairs, Rates, and Taxes.
10	67	30	23	109	191	Printing and Office Expenses.
3	11	25	24	28	120	Travelling and Police.
23	96	21	40	125	145	Medical Expenses and Funerals.
16	50	19	11	58	107	Sundries.
1,058	2,867	1,090	1,923	3,471	4,901	Total Ordinary Charges.
18·2	24·7	18·5	16·3	24·3	22·4	Cost per Head for Maintenance and Management.
5·2	4·8	5·4	5·9	5·8	6·1	Ditto Food.
4·1	2·6	2·3	2·5	3·7	3·2	Ditto Clothing.
						Extra Charges.
—	—	29	332	33	121	Rent of School and Interest.
—	—	—	—	—	—	„ Farm Premises.
—	47	67	35	80	77	Disposal. Home Service.
—	—	—	—	76	466	„ Emigration.
—	—	66	63	39	-	Building & Capital Account.
-	47	162	430	288	664	Total Extra Charges.
1,058	2,914	1,252	2,353	3,759	5,565	TOTAL EXPENDITURE.
						Industrial Departments.
66	615	26	47	-	236	Profit.
—	—	-	—	28	—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	HALSTEAD.	SWANSEA.	PARK ROW.	CLIFTON.	"NATIONAL NAUTICAL" late "FORMIDABLE."	BRISTOL.
Average Number of Inmates	Girls. 62	Boys. 65	Boys. 80	Boys. 193	Boys. 321	Girls. 60
Number of Officers	7	8	7	15	22	6
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	664	624	954	2,115	3,547	653
Subscriptions, Legacies, &c...	151	—	17	35	563	30
County and Borough Rates..	133	—	127	143	753	53
Education Authority Rates..	467	1,001	667	2,247	1,985	530
Parochial Authorities ..	—	—	—	33	253	—
Voluntary Inmates	21	—	—	—	757	—
Hire of Labour	—	—	96	138	—	—
Sundries	39	12	44	25	43	21
TOTAL RECEIPTS ..	1,475	1,637	1,904	4,736	7,901	1,287
EXPENDITURE.						
Officers' Salaries and Allowances.	375	477	452	1,230	2,415	345
Food of Inmates	403	409	447	1,305	1,496	452
Clothing	147	283	173	496	972	178
Washing, Fuel, Light, and Furniture.	132	230	181	449	449	123
Repairs, Rates, and Taxes ..	188	80	230	614	571	129
Printing and Office Expenses	31	16	54	235	377	10
Travelling and Police ..	13	15	20	52	48	9
Medical Expenses and Funerals.	31	38	16	113	201	14
Sundries	12	18	168	170	201	14
Total Ordinary Charges	1,332	1,566	1,741	4,664	6,730	1,273
Cost per Head for Maintenance and Management.	21·5	24·1	21·8	24·2	21·0	21·2
Ditto Food	6·5	6·3	5·6	6·8	4·7	7·5
Ditto Clothing	2·4	4·4	2·2	2·6	3·0	3·0
Extra Charges.						
Rent of School and Interest	25	—	78	30	169	6
„ Farm Premises ..	—	—	—	—	—	—
Disposal, Home Service ..	22	28	77	192	351	80
„ Emigration ..	—	—	—	—	—	—
Building & Capital Account	—	—	—	38	1,720	—
Total Extra Charges ..	47	28	155	260	2,240	86
TOTAL EXPENDITURE .	1,379	1,594	1,896	4,924	8,970	1,359
Industrial Departments.						
Profit	—	—	93	208	130	—
Loss	—	31	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*

Carlton House.	Purbrook.	Milton.	Portsmouth and South Hants.	Hereford.	Church Farm.	Receipts and Expenditure.
Girls. 56	Boys. 87	Boys. 150	Girls. 35	Boys. 125	Boys. 84	Average Number of Inmates.
5	11	24	6	15	14	Number of Officers.
£	£	£	£	£	£	Receipts.
549	738	338	349	988	711	Treasury Grant.
—	—	2,839	154	740	552	Subscriptions, Legacies, &c.
586	819	427	394	94	1,042	County and Borough Rates.
—	14	12	26	1,488	18	Education Authority Rates.
—	39	—	18	44	—	Parochial Authorities.
—	—	—	—	79	—	Voluntary Inmates.
—	—	—	—	68	—	Hire of Labour.
1	—	—	—	87	91	Sundries.
1,136	1,608	3,616	941	3,588	2,414	Total Receipts.
						Expenditure
346	515	1,029	266	775	598	Officers' Salaries and Allowances.
271	516	670	255	701	568	Food of Inmates.
140	232	348	67	425	319	Clothing.
137	122	685	122	448	314	Washing, Fuel, Light, and Furniture.
129	84	324	28	187	244	Repairs, Rates, and Taxes.
38	26	126	23	151	189	Printing and Office Expenses.
3	32	5	3	14	25	Travelling and Police.
35	27	111	1	56	58	Medical Expenses and Funerals.
25	12	47	27	126	91	Sundries.
1,124	1,566	3,345	792	2,973	2,406	Total Ordinary Charges.
20·1	18·0	22·3	22·6	23·8	28·6	Cost per Head for Maintenance and Management.
4·8	5·9	4·5	7·3	6·3	6·8	Ditto Food.
2·5	2·7	2·3	1·9	3·4	3·8	Ditto Clothing.
						Extra Charges.
—	16	—	—	—	—	Rent of School and Interest.
—	17	—	—	16	36	„ Farm Premises.
12	64	35	48	132	85	Disposal, Home Service.
—	—	337	—	—	—	„ Emigration.
—	—	—	—	484	—	Building & Capital Account.
12	97	372	48	632	121	Total Extra Charges.
1,136	1,663	3,717	840	3,605	2,527	Total Expenditure.
						Industrial Departments.
—	50	120	—	132	940	Profit.
—	—	—	—	—	—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	KENT COUNTY.	ST. VINCENT'S (Ro. Cath.).	WHITSTABLE (Ro. Cath.).	EAST LONDON.	BOLTON.	MANCHESTER.
Average Number of Inmates	Boys. 184	Boys. 200	Boys. 54	Boys. 150	Boys. 204	Boys. 180
Number of Officers	18	25	8	16	17	18
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	1,496	2,391	371	1,796	2,290	1,990
Subscriptions, Legacies, &c.	—	298	—	360	94	74
County and Borough Rates	2,721	273	951	2,853	855	1,551
Education Authority Rates	161	2,883	28	—	1,132	670
Parochial Authorities ..	37	—	22	—	54	94
Voluntary Inmates	—	—	—	—	—	—
Hire of Labour	—	—	—	—	140	91
Sundries	—	—	—	—	7	210
TOTAL RECEIPTS ..	4,415	5,845	1,372	5,009	4,572	4,680
EXPENDITURE						
Officers' Salaries and Allowances.	1,146	986	414	1,085	1,124	1,263
Food of Inmates	1,509	1,656	451	1,034	1,168	850
Clothing	683	696	74	461	441	398
Washing, Fuel, Light, and Furniture.	678	641	88	419	794	534
Repairs, Rates, and Taxes ..	311	671	97	508	483	491
Printing and Office Expenses	64	90	10	212	202	178
Travelling and Police ..	63	82	8	7	26	29
Medical Expenses and Funerals.	176	54	9	66	98	60
Sundries	23	156	14	335	169	127
Total Ordinary Charges	4,647	5,032	1,165	4,207	4,505	3,930
Cost per Head for Maintenance and Management.	25·3	25·2	21·6	28·0	22·1	21·8
Ditto Food	8·2	8·3	8·3	6·9	5·7	4·7
Ditto Clothing	3·7	3·5	1·4	3·1	2·2	2·2
Extra Charges.						
Rent of School and Interest	—	260	249	186	8	—
„ Farm Premises ..	—	25	—	—	12	—
Disposal, Home Service ..	85	105	—	197	137	199
„ Emigration ..	—	440	—	8	—	—
Building & Capital Account	822	305	—	—	500	—
Total Extra Charges ..	907	1,135	249	391	657	199
TOTAL EXPENDITURE..	5,554	6,167	1,414	4 598	5,162	4,129
Industrial Departments.						
Profit	1,139	335	—	—	419	175
Loss	—	—	—	50	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*						
SALE.	BARNES' HOME.	ST JOSEPH'S (Ro. Cath.).	ST. JOSEPH'S (Ro. Cath.).	LIVERPOOL.	LIVERPOOL.	RECEIPTS AND EXPENDITURE.
Girls. 100	Boys. 259	Boys. 339	Girls. 158	Boys. 215	Girls. 100	Average Number of Inmates.
12	25	40	20	19	7	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
1,104	2,965	3,782	1,791	2,042	977	Treasury Grant.
36	101	11	110	27	27	Subscriptions, Legacies, &c.
592	2,110	560	322	157	63	County and Borough Rates.
445	1,029	2,021	844	1,680	871	Education Authority Rates.
—	—	33	—	39	32	Parochial Authorities.
—	—	51	50	—	—	Voluntary Inmates.
—	555	333	—	121	—	Hire of Labour.
38	141	—	—	73	—	Sundries.
2,215	6,901	6,791	3,117	4,119	1,970	TOTAL RECEIPTS.
						EXPENDITURE.
495	1,812	1,339	541	947	423	Officers' Salaries and Allowances.
562	1,255	2,321	1,074	1,239	612	Food of Inmates.
252	639	735	448	700	292	Clothing.
386	860	714	491	695	424	Washing, Fuel, Light, and Furniture.
146	616	801	382	334	134	Repairs, Rates, and Taxes.
91	295	179	112	164	78	Printing and Office Expenses.
38	114	26	61	66	23	Travelling and Police.
32	104	147	41	80	61	Medical Expenses and Funerals.
172	159	240	37	94	78	Sundries.
2,174	5,854	6,502	3,187	4,319	2,125	Total Ordinary Charges.
21·7	23·6	19·2	20·2	20·1	21·2	Cost per Head for Maintenance and Management.
5·6	4·8	6·8	6·8	5·8	6·1	Ditto Food.
2·5	2·5	2·2	2·8	3·3	2·9	Ditto Clothing.
						Extra Charges.
—	—	367	224	30	—	Rent of School and Interest.
—	—	—	—	—	—	„ Farm Premises.
87	140	99	125	86	149	Disposal, Home Service.
—	—	—	—	60	24	„ Emigration.
—	399	—	100	140	70	Building & Capital Account.
87	539	466	449	316	243	Total Extra Charges.
2,261	6,393	6,968	3,636	4,635	2,368	TOTAL EXPENDITURE.
						Industrial Departments.
52	750	980	328	299	159	Profit.
—	—	—			—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	GRAFTON STREET.	NILE STREET.	ST. GEORGE'S (Ro. Cath.).	ST. ANNE ST. (Ro. Cath.).	BEACON LANE (Ro. Cath.).	ST. THOMAS. (Ro. Cath.).
Average Number of Inmates	Boys. 208	Girls. 80	Boys. 270	Boys. 150	Boys. 199	Boys. 162
Number of Officers	17	6	18	16	20	17
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	2,139	756	2,756	1,496	1,968	1,321
Subscriptions, Legacies, &c.	81	58	—	351	21	54
County and Borough Rates..	95	151	48	83	—	64
Education Authority Rates..	1,707	648	1,934	1,221	1,781	1,156
Parochial Authorities ..	—	—	—	67	—	—
Voluntary Inmates	—	—	—	4	22	54
Hire of Labour	143	—	39	—	—	140
Sundries	3	36	—	—	15	69
TOTAL RECEIPTS ..	4,168	1,647	4,777	3,222	3,807	2,858
EXPENDITURE.						
Officers' Salaries and Allowances.	901	379	1,013	936	744	960
Food of Inmates	988	386	1,519	835	1,337	602
Clothing	596	162	972	395	544	394
Washing, Fuel, Light, and Furniture.	518	225	475	290	363	449
Repairs, Rates, and Taxes ..	228	89	412	392	345	247
Printing and Office Expenses	205	107	70	61	44	39
Travelling and Police ..	36	15	11	—	5	24
Medical Expenses and Funerals.	90	44	115	75	90	61
Sundries	140	93	180	151	109	31
Total Ordinary Charges	3,702	1,500	4,767	3,135	3,581	2,807
Cost per Head for Maintenance and Management.	17·8	18·8	17·7	20·9	18·0	17·3
Ditto Food	4·8	4·8	5·6	5·6	6·7	3·7
Ditto Clothing	2·9	2·0	3·6	2·6	2·7	2·4
Extra Charges.						
Rent of School and Interest	—	—	31	114	106	468
„ Farm Premises ..	—	—	—	—	—	—
Disposal, Home Service ..	105	42	100	129	87	11
„ Emigration ..	134	42	—	—	—	121
Building & Capital Account	—	—	—	—	136	82
Total Extra Charges ..	239	84	131	243	329	682
TOTAL EXPENDITURE	3,941	1,584	4,898	3,378	3,910	3,489
Industrial Departments.						
Profit	118	—	632	7	112	100
Loss	—	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £ ; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*

St. Anne's. (Ro. Cath.).	St. Elizabeth's. (Ro. Cath.).	Blackbrook House (Ro. Cath.).	Desford.	Feltham.	Boys' Home.	Receipts and Expenditure.
Girls. 152	Girls. 99	Girls. 120	Boys. 199	Boys. 480	Boys. 139	Average Number of Inmates
24	14	11	18	62	19	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
1,382	981	1,094	1,893	4,448	1,348	Treasury Grant.
450	—	—	—	—	4,127	Subscriptions, Legacies, &c.
5	18	4	232	15,225	2,021	County and Borough Rates.
1,178	760	1,006	2,757	—	—	Education Authority Rates.
—	—	—	95	—	—	Parochial Authorities.
7	—	24	—	*141	—	Voluntary Inmates.
—	—	—	—	40	35	Hire of Labour.
63	—	—	90	—	53	Sundries.
3,085	1,759	2,128	5,067	19,854	7,584	TOTAL RECEIPTS.
						EXPENDITURE.
772	415	330	1,209	5,474	1,227	Officers' Salaries and Allowances.
985	698	651	1,063	3,459	1,062	Food of Inmates.
258	135	182	530	2,520	302	Clothing.
421	201	194	669	2,961	665	Washing, Fuel, Light, and Furniture.
314	226	306	579	1,176	655	Repairs, Rates, and Taxes.
33	19	69	291	590	296	Printing and Office Expenses.
20	—	10	42	44	57	Travelling and Police.
108	33	36	150	527	152	Medical Expenses and Funerals.
87	89	66	201	731	124	Sundries.
2,998	1,816	1,844	4,734	17,485	4,600	Total Ordinary Charges.
19·7	18·3	15·4	23·8	36·4	33·1	Cost per Head for Maintenance and Management.
6·5	7·0	5·4	5·3	7·2	7·6	Ditto Food.
1·7	1·4	1·5	2·7	5·2	2·6	Ditto Clothing.
						Extra Charges.
143	—	80	—	—	536	Rent of School and Interest.
43	—	—	19	—	—	,, Farm Premises.
95	26	64	213	†1,837	32	Disposal, Home Service.
—	—	52	52	344	13	,, Emigration.
66	—	88	252	393	902	Building & Capital Account.
347	26	284	542	2,574	1,483	Total Extra Charges.
3,345	1,842	2,128	5,276	20,059	6,083	TOTAL EXPENDITURE.
						Industrial Departments.
312	30	—	—	127		Profit.
—	—	—	195	—	63	Loss.

* Parents' payments for boys under Middlesex Act.
† Including expenses of Agencies.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	FIELD LANE.	HAYES.	ELM HOUSE.	MAURICE GIRLS' HOME.	KING EDWARD.	GORDON HOUSE.
Average Number of Inmates	Boys. 122	Boys. 59	Girls. 40	Girls. 31	Girls. 101	Girls. 70
Number of Officers	14	11	4	3	9	10
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	1,166	596	376	111	966	536
Subscriptions, Legacies, &c...	—	895	109	310	60	—
County and Borough Rates ..	1,644	930	376	202	333	1,707
Education Authority Rates ..	5	181	65	—	921	—
Parochial Authorities ..	—	—	—	—	—	—
Voluntary Inmates	70	49	9	—	—	—
Hire of Labour	—	—	—	12	—	—
Sundries	42	15	55	2,530	—	2
TOTAL RECEIPTS ..	2,927	2,666	990	3,165	2,280	2,245
EXPENDITURE.						
Officers' Salaries and Allowances.	827	687	289	167	606	704
Food of Inmates	779	377	281	169	560	439
Clothing	615	181	71	61	250	155
Washing, Fuel, Light, and Furniture.	622	245	92	100	232	336
Repairs, Rates, and Taxes ..	297	398	122	66	211	311
Printing and Office Expenses	95	205	27	30	65	25
Travelling and Police	14	12	9	2	34	16
Medical Expenses and Funerals.	57	64	34	4	56	71
Sundries	42	104	10	21	95	30
Total Ordinary Charges	3,348	2,173	935	620	2,109	2,087
Cost per Head for Maintenance and Management.	27·4	36·8	23·4	20·0	20·9	29·8
Ditto Food	6·4	6·4	7·0	5·5	5·5	6·3
Ditto Clothing	5·0	3·1	1·8	2·0	2·5	2·2
Extra Charges.						
Rent of School and Interest	600	—	—	42	—	—
„ Farm Premises ..	—	—	—	—	—	—
Disposal, Home Service ..	51	34	—	8	90	27
„ Emigration ..	52	300	—	—	—	—
Building & Capital Account	—	19	67	2,272	—	131
Total Extra Charges ..	703	353	67	2,322	90	158
TOTAL EXPENDITURE ..	4,051	2,526	1,002	2,942	2,199	2,245
Industrial Departments.						
Profit	616	—	—	11	—	—
Loss	—	20	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*

Nazareth House (Ro. Cath.).	Stamford Hill.	Buxton.	New-castle.	Northum-berland Village Homes.	Plain-melor.*	Receipts and Expenditure.
Girls. 113	Girls. 13	Boys. 64	B. & G. 135	Girls. 119	Girls. —	Average Number of Inmates
11	6	10	17	14	2	Number of Officers .. ..
£	£	£	£	£	£	Receipts.
1,113	102	505	1,359	369	211	Treasury Grant.
—	701	373	91	832	26	Subscriptions, Legacies, &c.
1,074	85	453	—	67	51	County and Borough Rates.
—	28	225	651	263	96	Education Authority Rates.
—	—	—	—	1,008	—	Parochial Authorities.
40	48	151	—	116	—	Voluntary Inmates.
—	—	—	—	—	—	Hire of Labour.
—	10	7	781	186	125	Sundries.
2,227	974	1,714	2,882	2,841	509	Total Receipts.
						Expenditure.
216	304	555	1,460	739	96	Officers' Salaries and Allowances.
724	83	347	701	719	127	Food of Inmates.
306	29	174	401	360	20	Clothing.
388	89	162	406	850	35	Washing, Fuel, Light, and Furniture.
296	106	95	407	265	6	Repairs, Rates and Taxes.
81	73	33	63	192	33	Printing and Office Expenses
10	4	2	5	33	9	Travelling and Police.
80	15	64	66	59	—	Medical Expenses and Funerals.
27	33	11	35	33	11	Sundries.
2,108	736	1,443	3,544	3,250	337	Total Ordinary Charges.
18·7	56·6	22·5	26·2	27·3	—	Cost per Head for Maintenance and Management.
6·4	6·4	5·4	5·2	6·0	—	Ditto Food.
2·7	2·2	2·7	3·0	3·0	—	Ditto Clothing.
						Extra Charges.
—	—	—	—	—	12	Rent of School and Interest.
—	—	52	—	—	—	„ Farm Premises.
120	5	48	119	58	17	Disposal, Home Service.
—	—	—	—	—	—	„ Emigration.
—	—	—	—	22	—	Building & Capital Account.
120	5	100	119	80	29	Total Extra Charges.
2,228	741	1,543	3,663	3,330	366	Total Expenditure.
						Industrial Departments.
—		182	624	690	5	Profit.
—	—	—	—	—	—	Loss.

* School closed during the year.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	ELSWICK (Ro. Cath.).	SHIPTON-UNDER-WYCHWOOD.	SOMERSET.	BATH.	CANNINGTON. (Ro. Cath.).	STAFFORD.
Average Number of Inmates	Boys. 68	Girls. 33	Boys. 168	Girls. 81	Boys. 93	Boys. 124
Number of Officers	10	5	20	6	10	18
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	620	231	1,668	838	1,013	1,414
Subscriptions Legacies, &c...	100	255	—	14	153	—
County and Borough Rates..	59	134	671	233	85	2,265
Education Authority Rates..	444	73	1,138	574	899	41
Parochial Authorities.. ..	—	4	—	—	109	31
Voluntary Inmates	78	3	—	—	—	—
Hire of Labour	—	—	349	—	84	—
Sundries	4	—	13	6	—	1
TOTAL RECEIPTS ..	1,305	700	3,839	1,665	2,343	3,752
EXPENDITURE.						
Officers' Salaries and Allowances.	415	202	956	315	654	1,201
Food of Inmates	318	153	1,294	517	605	671
Clothing	195	31	739	215	353	441
Washing, Fuel, Light, and Furniture.	90	94	499	248	190	609
Repairs, Rates, and Taxes ..	59	77	237	127	89	99
Printing and Office Expenses	5	13	159	68	71	74
Travelling and Police ..	—	11	3	20	17	19
Medical Expenses and Funerals.	20	49	86	36	58	66
Sundries	52	44	233	54	61	121
Total Ordinary Charges	1,154	674	4,206	1,600	2 098	3,301
Cost per Head for Maintenance and Management.	17·0	20·4	25·0	19·8	22·6	26·6
Ditto Food	4·7	4·6	7·7	6·4	6·5	5·4
Ditto Clothing	2·9	0·9	4·4	2·6	3·8	3·6
Extra Charges.						
Rent of School and Interest..	100	—	125	117	100	—
„ Farm Premises ..	—	—	80	—	—	6
Disposal, Home Service ..	15	26	152	72	105	132
„ Emigration ..	—	—	—	—	—	—
Building & Capital Account	—	—	—	—	—	394
Total Extra Charges ..	115	26	357	189	205	532
TOTAL EXPENDITURE..	1,269	700	4,563	1,789	2,303	3,833
Industrial Departments.						
Profit	—	—	983	158	208	—
Loss..	—	—	—	—	—	33

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*

STAFFORD.	STANDON BRIDGE.	WALSHAM-LE-WILLOWS.	MAYFORD.	CLAPHAM PARK.	ACRE LANE.	RECEIPTS AND EXPENDITURE.
Girls. 52	Boys. 89	Boys. 39	Boys. 179	Boys. 31	Boys. 29	Average Number of Inmates.
6	13	5	19	6	—	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
508	213	227	1,862	144	2	Treasury Grant.
—	1,307	256	—	—	—	Subscriptions, Legacies, &c.
425	92	251	3,957	796	1,082	County and Borough Rates.
488	66	20	—	—	—	Education Authority Rates.
—	1	18	—	—	—	Parochial Authorities.
—	73	12	—	—	—	Voluntary Inmates.
—	—	—	17	—	—	Hire of Labour.
—	—	—	—	22	—	Sundries.
1,421	1,752	784	5,836	962	1,084	TOTAL RECEIPTS
						EXPENDITURE.
374	438	340	1,452	354	248	Officers' Salaries and Allowances.
283	578	234	1,244	141	292	Food of Inmates.
142	160	114	538	25	136	Clothing.
194	243	69	760	162	227	Washing, Fuel, Light, and Furniture.
184	82	28	578	120	137	Repairs, Rates, and Taxes.
27	30	16	298	9	25	Printing and Office Expenses.
10	14	10	36	3	—	Travelling and Police.
130	32	16	165	43	—	Medical Expenses and Funerals.
22	60	15	261	11	19	Sundries.
1,366	1,637	742	5,332	868	1,084	Total Ordinary Charges.
26·3	18·4	19·0	29·8	28·0	37·4	Cost per Head for Maintenance and Management.
5·4	6·5	6·0	6·9	4·5	10·1	Ditto Food.
2·7	1·8	2·9	3·0	0·8	4·7	Ditto Clothing.
						Extra Charges.
—	51	—	—	2	—	Rent of School and Interest.
—	83	17	—	—	—	„ Farm Premises.
55	65	13	153	2	—	Disposal, Home Service.
—	32	28	59	—	—	„ Emigration.
—	—	—	210	90	—	Building & Capital Account.
55	231	58	422	94	—	Total Extra Charges.
1,421	1,868	800	5,754	962	1,084	TOTAL EXPENDITURE.
						Industrial Departments.
—	56	—	7	—	—	Profit.
—	—	3	—	—	—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

ENGLAND—*continued.*

RECEIPTS AND EXPENDITURE.	PRINCESS MARY VILLAGE HOMES.	ST. MARY'S, W. CROYDON (Ro. Cath.).	PORTSLADE.	SHUSTOKE.	HARBORNE.	COVENTRY.
Average Number of Inmates	Girls. 179	Girls. 150	Boys. 81	Boys. 151	Boys. 129	Girls. 49
Number of Officers	30	12	17	19	12	6
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	1,583	1,589	820	1,696	1,288	467
Subscriptions, Legacies, &c...	1,414	—	—	—	142	41
County and Borough Rates..	293	1,950	7	2,904	922	148
Education Authority Rates..	1,155	151	2,400	—	175	295
Parochial Authorities.. ..	324	—	—	—	19	72
Voluntary Inmates	11	—	—	—	26	27
Hire of Labour	—	—	—	9	23	—
Sundries	—	—	37	13	12	44
TOTAL RECEIPTS ..	4,780	3,690	3,264	4,622	2,607	1,094
EXPENDITURE.						
Officers' Salaries and Allowances.	1,355	745	1,113	1,238	844	299
Food of Inmates	1,045	1,332	629	692	660	338
Clothing	540	257	223	439	326	112
Washing, Fuel, Light, and Furniture.	654	282	485	606	470	108
Repairs, Rates, and Taxes ..	387	309	385	821	104	99
Printing and Office Expenses	376	39	188	107	213	43
Travelling and Police ..	59	39	4	51	51	11
Medical Expenses and Funerals.	45	60	83	83	60	23
Sundries	54	14	69	106	106	79
Total Ordinary Charges	4,495	3,167	3,179	4,143	2,833	1,112
Cost per Head for Maintenance and Management.	25·1	21·1	39·3	27·4	22·0	22·7
Ditto Food	5·8	8·9	7·8	4·6	5·1	6·9
Ditto Clothing	3·0	1·7	2·8	2·9	2·5	2·3
Extra Charges.						
Rent of School and Interest	130	280	—	—	—	19
„ Farm Premises ..	—	—	—	—	—	—
Disposal, Home Service ..	63	75	38	206	73	13
„ Emigration ..	—	129	58	—	—	—
Building & Capital Account	—	—	—	442	63	—
Total Extra Charges ..	193	434	96	648	136	32
TOTAL EXPENDITURE..	4,688	3,601	3,275	4,791	2,969	1,144
Industrial Departments.						
Profit	44	—	13	137	129	—
Loss	—	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £ ; cost per head to the nearest tenth of a £.

ENGLAND—*continued.*						RECEIPTS AND EXPENDITURE.
SALISBURY (Ro. Cath.).	HULL.	"SOUTHAMPTON."	LEEDS.	THORPARCH.	LEEDS.	
Girls. 105	Girls. 47	Boys. 195	Boys. 173	Girls. 98	Girls. 77	Average Number of Inmates.
13	6	18	18	13	6	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
641	396	{ 1,851 *55 }	1,491	942	734	Treasury Grant.
341	—	22	—	—	61	Subscriptions, Legacies, &c.
107	30	515	193	194	165	County and Borough Rates.
284	493	984	2,054	1,040	397	Education Authority Rates.
281	—	697	72	—	—	Parochial Authorities.
181	—	215	15	3	14	Voluntary Inmates.
—	—	—	19	—	—	Hire of Labour.
—	3	180	16	62	30	Sundries.
1,835	922	4,519	3,860	2,241	1,401	TOTAL RECEIPTS.
						EXPENDITURE.
391	265	1,616	1,065	558	281	Officers' Salaries and Allowances.
321	206	1,071	821	491	415	Food of Inmates.
320	130	648	561	280	164	Clothing.
376	193	343	715	639	296	Washing, Fuel, Light, and Furniture.
234	149	528	349	230	126	Repairs, Rates, and Taxes.
54	9	217	166	74	22	Printing and Office Expenses.
36	2	57	4	38	4	Travelling and Police.
42	26	170	73	44	28	Medical Expenses and Funerals.
56	6	291	68	32	83	Sundries.
2,330	986	4,941	3,822	2,386	1,419	Total Ordinary Charges.
22·2	21·0	25·3	22·1	24·3	18·4	Cost per Head for Maintenance and Management.
7·8	4·4	5·5	4·7	5·0	5·4	Ditto Food.
3·0	2·8	3·3	3·2	2·8	2·1	Ditto Clothing.
						Extra Charges.
5	—	—	—	—	—	Rent of School and Interest.
—	—	—	48	—	—	„ Farm Premises.
37	20	94	65	66	45	Disposal, Home Service.
—	—	—	—	49	—	„ Emigration.
—	—	—	—	—	—	Building & Capital Account.
42	20	94	113	115	45	Total Extra Charges
2,372	1,006	5,035	3,935	2,501	1,464	TOTAL EXPENDITURE.
						Industrial Departments.
434	56	314	56	224	201	Profit.
—	—	—	—	—	—	Loss.

* Admiralty grant for Gunnery Instructor.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND—*continued.*					
	YORK.	YORK.	MIDDLESBROUGH.	SHIBDEN (Ro. Cath.).	YORKSHIRE (Ro. Cath.).	BECKETT HOME.
Average Number of Inmates	Boys. 120	Girls. 50	Boys. 60	Boys. 148	Girls. 101	Girls. 29
Number of Officers	15	5	8	25	11	4
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	1,350	570	656	1,576	973	201
Subscriptions, Legacies, &c...	20	369	—	25	176	58
County and Borough Rates	269	231	28	363	193	162
Education Authority Rates..	752	208	645	1,630	613	120
Parochial Authorities ..	—	14	27	20	76	—
Voluntary Inmates	—	1	62	—	292	10
Hire of Labour	226	16	45	—	—	—
Sundries	—	31	54	16	1	—
TOTAL RECEIPTS ..	2,617	1,440	1,517	3,630	2,324	551
EXPENDITURE.						
Officers' Salaries and Allowances.	697	299	424	778	392	200
Food of Inmates	605	254	419	953	868	121
Clothing	467	181	164	393	117	18
Washing, Fuel, Light, and Furniture.	213	178	214	431	296	76
Repairs, Rates, and Taxes ..	233	130	82	301	148	52
Printing and Office Expenses	54	63	30	96	27	7
Travelling and Police ..	12	11	—	13	39	3
Medical Expenses and Funerals.	64	9	23	107	47	3
Sundries	66	42	5	21	153	44
Total Ordinary Charges	2,411	1,167	1,361	3,093	2,087	524
Cost per Head for Maintenance and Management.	20·1	23·3	22·7	20·9	20·7	18·0
Ditto Food	5·0	5·1	7·0	6·4	8·6	4·2
Ditto Clothing	3·9	3·6	2·7	2·7	1·2	0·6
Extra Charges.						
Rent of School and Interest	3	17	—	173	—	—
„ Farm Premises ..	—	—	—	29	—	—
Disposal, Home Service ..	46	34	16	134	49	5
„ Emigration ..	—	—	—	335	—	22
Building & Capital Account	—	—	138	—	—	—
Total Extra Charges ..	49	51	154	671	49	27
TOTAL EXPENDITURE..	2,460	1,218	1,515	3,764	2,136	551
Industrial Departments.						
Profit	153	81	73	200	250	—
Loss	—	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to nearest tenth of £.

SCOTLAND.						Receipts and Expenditure.
Aberdeen.	Aberdeen Female.	Aberdeen (Ro. Cath.).	Ayr.	Ayr.	Kilmarnock.	
Boys. 116	Girls. 63	Girls. 130	Boys. 97	Girls. 60	B. & G. 101	Average Number of Inmates.
13	6	9	8	5	10	Number of Officers.
£	£	£	£	£	£	Receipts.
1,373	690	1,118	1,120	684	1,248	Treasury Grant.
39	51	—	161	81	94	Subscriptions, Legacies, &c.
556	394	115	33	17	90	County and Borough Rates.
39	2	12	64	103	69	Education Authority Rates.
16	—	—	—	—	—	Parochial Authorities.
—	34	—	—	—	—	Voluntary Inmates.
—	—	—	85	—	78	Hire of Labour.
—	119	—	—	—	46	Sundries.
2,023	1,290	1,245	1,463	885	1,625	Total Receipts.
						Expenditure.
642	306	50	460	280	419	Officers' Salaries and Allowances.
620	290	652	444	264	627	Food of Inmates.
378	136	327	344	155	237	Clothing.
223	132	237	200	143	258	Washing, Fuel, Light, and Furniture.
170	92	117	206	111	48	Repairs, Rates, and Taxes.
151	47	58	46	39	24	Printing and Office Expenses.
5	5	—	—	—	7	Travelling and Police.
19	26	12	10	5	24	Medical Expenses and Funerals.
92	40	18	4	8	18	Sundries.
2,300	1,083	1,471	1,714	1,005	1,662	Total Ordinary Charges.
19·8	17·2	11·3	17·7	16·8	16·5	Cost per Head for Maintenance and Management.
5·3	4·8	5·0	4·6	4·4	6·2	Ditto Food.
3·3	2·2	2·5	3·5	2·6	2·3	Ditto Clothing.
						Extra Charges.
81	117	66	100	—	42	Rent of School and Interest
—	—	—	—	—	—	„ Farm Premises.
45	27	149	—	24	73	Disposal, Home Service.
—	—	—	—	—	—	„ Emigration.
—	—	1,800	17	—	12	Building & Capital Account.
126	144	2,015	117	24	127	Total Extra Charges.
2,426	1,227	3,486	1,831	1,029	1,789	Total Expenditure.
						Industrial Departments.
279	—	—	114	36	266	Profit.
—	—	—	—		—	Loss.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS,—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE	SCOTLAND—*continued.*					
	"EMPRESS."	DUMFRIES.	EDINBURGH (Original).	LEITH.	LEITH.	TRANENT (Ro. Cath.).
Average Number of Inmates	Boys. 400	Boys. 91	B. & G. 270	Boys. 134	Girls. 60	Boys. 196
Number of Officers	22	10	23	10	5	10
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	{ 5,963 *55 }	992	3,052	1,490	710	2,271
Subscriptions, Legacies, &c.	1,136	8,661	11,235	99	91	319
County and Borough Rates	885	88	—	70	40	14
Education Authority Rates..	—	73	174	53	10	132
Parochial Authorities ..	—	73	17	—	—	97
Voluntary Inmates	—	—	5	6	—	30
Hire of Labour	—	107	96	—	—	1
Sundries	535	1,015	1,541	57	—	34
TOTAL RECEIPTS ..	8,574	11,009	16,120	1,775	851	2,888
EXPENDITURE.						
Officers' Salaries and Allowances.	2,607	438	1,428	632	236	707
Food of Inmates	2,110	554	1,248	676	288	1,067
Clothing	914	270	718	377	172	441
Washing, Fuel, Light, and Furniture.	576	320	741	292	95	305
Repairs, Rates, and Taxes ..	685	167	483	116	27	228
Printing and Office Expenses	283	50	233	37	12	99
Travelling and Police	126	16	21	—	2	35
Medical Expenses and Funerals.	160	53	79	15	13	42
Sundries	241	115	9	17	13	90
Total Ordinary Charges	7,702	1,983	4,960	2,162	858	3,014
Cost per Head for Maintenance and Management.	19·3	21·8	18·3	16·1	14·3	15·4
Ditto Food	5·3	6·1	4·6	5·0	4·8	5·4
Ditto Clothing	2·3	3·0	2·7	2·8	2·9	2·2
Extra Charges.						
Rent of School and Interest	40	28	139	—	—	127
,, Farm Premises ..	—	—	—	—	—	—
Disposal, Home Service ..	148	36	169	61	42	10
,, Emigration ..	—	—	41	—	—	—
Building & Capital Account	—	700	—	—	—	62
Total Extra Charges ..	188	764	349	61	42	199
TOTAL EXPENDITURE	7,890	2,747	5,309	2,223	900	3,213
Industrial Departments.						
Profit	4	102	283	152	32	—
Loss	—	—	—	—	—	122

* Admiralty grant for Gunnery Instructor

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £ ; cost per head to the nearest tenth of a £.

SCOTLAND—*continued.*						
ARBROATH.	DUNDEE.	DUNDEE.	"MARS."	MOSSBANK.	MARYHILL.	RECEIPTS AND EXPENDITURE.
Boys. 31	Boys. 217	Girls. 118	Boys. 398	Boys. 382	Girls. 210	Average Number of Inmates.
4	13	7	30	32	23	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
332	2,620	1,325	{ 6,003 *55 }	4,560	2,378	Treasury Grant.
7	1,629	1,071	2,422	—	—	Subscriptions, Legacies, &c.
—	23	—	971	3,044	2,721	County and Borough Rates.
—	—	—	—	—	—	Education Authority Rates.
—	—	—	—	—	—	Parochial Authorities.
—	—	—	169	—	—	Voluntary Inmates.
36	427	—	—	396	—	Hire of Labour.
205	267	207	447	—	—	Sundries.
580	4,966	2,603	10,067	8,000	5,099	TOTAL RECEIPTS.
						EXPENDITURE.
166	939	369	2,801	2,460	1,170	Officers' Salaries and Allowances.
186	1,042	474	2,375	2,309	1,263	Food of Inmates.
80	356	280	679	1,312	499	Clothing.
62	525	316	771	1,148	706	Washing, Fuel, Light, and Furniture.
37	390	255	1,173	581	342	Repairs, Rates, and Taxes.
7	215	110	455	121	101	Printing and Office Expenses.
1	—	—	226	78	58	Travelling and Police.
1	35	50	189	77	92	Medical Expenses and Funerals.
8	103	39	161	496	174	Sundries.
548	3,605	1,893	8,830	8,582	4,705	Total Ordinary Charges.
17·7	16·6	16·0	22·2	22·5	22·4	Cost per Head for Maintenance and Management.
6·0	4·8	4·0	6·0	6·0	6·0	Ditto Food.
2·6	1·6	2·4	1·7	3·4	2·4	Ditto Clothing.
						Extra Charges.
—	—	—	—	—	—	Rent of School and Interest.
—	—	—	—	—	—	„ Farm Premises.
—	—	—	427	199	433	Disposal, Home Service.
—	—	—	—	—	—	„ Emigration.
—	—	—	—	—	—	Building & Capital Account.
—	—	—	427	199	433	Total Extra Charges.
548	3,605	1,893	9,257	8,781	5,138	TOTAL EXPENDITURE.
						Industrial Departments.
36	322	61	—	1,120	26	Profit.
—	—	—	—	—	—	Loss.

* Admiralty grant for Gunnery Instructor.

APPENDIX No. IV. (E.)

INDUSTRIAL SCHOOLS.—Return of Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	SCOTLAND—*continued.*					
	GLASGOW (Ro. Cath. Orphanage).	GLASGOW (Ro. Cath. Orphanage).	SLATE-FIELD (Ro. Cath.).	DALBETH (Ro. Cath.).	PERTH FECHNEY.	PERTH LADIES'.
Average Number of Inmates	Boys. 199	Girls. 189	Boys. 149	Girls. 149	Boys. 141	Girls. 60
Number of Officers	13	15	11	11	17	5
RECEIPTS.	£	£	£	£	£	£
Treasury Grant	2,460	2,262	1,880	1,314	1,598	678
Subscriptions, Legacies, &c..	—	—	—	—	1.631	271
County and Borough Rates..	1,057	970	839	940	70	40
Education Authority Rates..	11	—	—	2	—	—
Parochial Authorities ..	—	—	—	—	—	—
Voluntary Inmates	—	—	—	6	83	31
Hire of Labour	192	—	231	—	—	—
Sundries	88	—	27	—	146	186
TOTAL RECEIPTS ..	3,808	3,232	2,977	2,262	3,528	1,206
EXPENDITURE.						
Officers' Salaries and Allowances.	828	476	618	520	685	227
Food of Inmates	1,196	1,254	756	1,116	822	306
Clothing	531	312	258	309	353	122
Washing, Fuel, Light, and Furniture.	359	455	344	173	420	82
Repairs, Rates, and Taxes ..	218	201	668	230	215	149
Printing and Office Expenses	143	36	34	25	80	23
Travelling and Police ..	63	16	89	23	8	9
Medical Expenses and Funerals.	41	41	41	83	31	26
Sundries	62	70	52	67	43	11
Total Ordinary Charges	3,441	2,861	2,860	2,546	2,657	955
Cost per Head for Maintenance and Management.	17·3	15·1	19·2	17·1	18·8	15·9
Ditto Food	6·0	6·6	5·1	7·5	5·8	5·1
Ditto Clothing	2·7	1·6	1·7	2·1	2·5	2·0
Extra Charges.						
Rent of School and Interest	687	400	252	96	49	25
„ Farm Premises ..	—	—	—	—	15	—
Disposal, Home Service ..	46	121	39	89	61	55
„ Emigration ..	—	—	6	24	9	—
Building & Capital Account	—	—	—	650	—	—
Total Extra Charges ..	733	521	297	859	134	80
TOTAL EXPENDITURE..	4,174	3,382	3,157	3,405	2,791	1,035
Industrial Departments.						
Profit"	377	18	337	108	453	—
Loss	—	—	—	—	—	—

APPENDIX No. IV. (E.)

and Expenditure of, for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

SCOTLAND—*continued.*						Receipts and Expenditure.
Perth.	Greenock.	Greenock.	Paisley.	Stirling.	Newton Stewart.	
Girls.	Boys.	Girls.	Boys.	Girls.	Girls.	
60	138	40	119	30	48	Average Number of Inmates.
4	9	4	12	3	3	Number of Officers.
£	£	£	£	£	£	Receipts.
613	1,484	443	1,432	310	543	Treasury Grant
198	14	130	3,518	92	48	Subscriptions, Legacies, &c.
40	281	72	98	6	67	County and Borough Rates.
—	200	52	45	—	127	Education Authority Rates.
—	—	—	—	65	4	Parochial Authorities.
36	—	—	—	—	—	Voluntary Inmates
-	—	1	123	10	—	Hire of Labour.
51	4	—	353	4	125	Sundries.
938	1,983	698	5,569	487	914	Total Receipts.
						Expenditure.
211	459	215	706	124	205	Officers' Salaries and Allowances.
344	653	264	584	123	268	Food of Inmates.
254	452	91	498	52	79	Clothing.
104	277	87	301	36	50	Washing, Fuel, Light, and Furniture.
75	109	91	229	51	34	Repairs, Rates, and Taxes.
55	49	14	59	11	12	Printing and Office Expenses.
8	7	—	—	3	—	Travelling and Police.
14	30	5	38	6	10	Medical Expenses and Funerals.
6	54	18	101	3	3	Sundries.
1,071	2,090	785	2,516	409	661	Total Ordinary Charges.
17·9	15·1	19·6	21·1	13·6	13·8	Cost per Head for Maintenance and Management.
5·7	4·7	6·6	4·9	4·1	5·6	Ditto Food.
4·2	3·3	2·3	4·2	1·7	1·7	Ditto Clothing.
						Extra Charges.
12	7	31	—	—	—	Rent of School and Interest.
—	—	—	—	—	—	„ Farm Premises.
89	—	9	—	6	22	Disposal, Home Service.
-	—	—	—	—	—	„ Emigration.
—	—	31	97	—	112	Building & Capital Account.
101	7	71	97	6	134	Total Extra Charges.
1,172	2,097	856	2,613	415	795	Total Expenditure.
						Industrial Departments.
76	—	—	138	11	—	Profit.
—	2	5	—	—	—	Loss.

APPENDIX No. IV. (E.)—SUMMARY.

INDUSTRIAL SCHOOLS.—RETURN showing the Expenditure and Cost per Head for the Year 1907.

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
TRAINING SHIPS.							
"Clio"	210	4,588 15 5	—	355 17 6	68 5 6	—	23 4 5
"Mount Edgcumbe" ..	208	5,115 3 4	—	111 0 8	5 14 3	—	25 1 11
"Wellesley"	286	6,856 3 4	—	215 15 1	718 17 10	—	22 4 3
National Nautical	321	6,730 2 11	169 10 1	350 10 9	129 18 10	—	22 3 8
"Southampton"	195	4,941 4 7	—	93 17 6	318 19 1	—	24 3 8
BOYS.							
Chester	66	1,753 16 5	—	41 7 0	69 0 7	—	26 3 1
Birkenhead	90	1,703 17 2	—	68 9 0	76 15 9	—	18 16 9
Stockport	91	2,436 0 0	79 5 5	39 1 0	337 12 5	—	24 7 2
Macclesfield	124	3,170 10 8	20 0 3	119 18 10	71 6 8	—	26 2 5
Bishop Brown, R.C... ..	128	3,530 17 0	261 4 2	96 18 0	220 12 11	—	20 15 4
Cumberland	129	3,169 0 3	—	125 12 3	25 11 3	—	25 6 10
Chadwick, R.C.	197	4,120 17 8	—	163 15 9	146 9 9	—	21 0 1
Devon and Exeter	68	1,569 5 10	17 5	38 10 0	190 0 3	—	21 2 2
Dorset	60	1,358 19 6	30 0 0	76 2 10	13 19 8	—	24 3 9
Durham..	123	3,695 13 3	—	24 0 0	240 16 10	—	28 5 8
Sunderland	101	1,895 19 5	32 11 10	40 14 7	—	78 2 4	20 5 5
Green's Home..	58	1,058 8 11	—	—	65 10 6	—	17 2 5
Gateshead	116	2,867 6 8	—	47 3 4	615 5 1	—	19 16 5
Essex	143	3,470 17 7	33 6 8	155 14 1	—	37 16 5	25 17 2
Ilford, R.C.	219	4,900 11 9	121 5 0	543 2 8	235 13 3	—	24 6 8
Swansea	65	1,565 19 7	—	28 9 11	—	33 15 8	25 1 0
Park Row	80	1,741 1 1	78 7 6	77 0 10	93 3 2	—	22 10 10
Clifton	193	4,664 6 3	29 12 0	191 18 3	208 8 7	—	24 4 8
Purbrook	87	1,565 14 3	16 10 0	63 17 9	49 13 3	—	18 7 0
Milton	150	3,345 7 11	—	371 12 0	120 1 0	—	23 19 7
Hereford	125	2,973 2 7	—	131 10 8	132 1 6	—	23 15 7
Church Farm	84	2,406 5 3	—	84 17 2	939 14 5	—	18 9 5
Kent	184	4,646 16 8	—	84 14 3	1,139 2 4	—	19 10 6
St. Vincent's, R.C.	200	5,032 1 11	259 17 8	544 17 10	335 0 4	—	27 10 2
Whitstable, R.C.	54	1,164 14 6	248 16 0	—	—	—	26 3 6
East London	150	4,207 2 2	186 4 8	204 5 7	—	50 4 11	30 19 9
Bolton	204	4,505 4 8	8 6 3	136 14 0	419 6 5	—	20 14 10
Manchester	180	3,930 3 5	—	198 8 11	175 6 5	—	21 19 3
Barnes' Home..	259	5,853 18 8	—	139 16 11	750 5 11	—	20 4 11

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (E.)—SUMMARY.

INDUSTRIAL SCHOOLS.—RETURN showing the Expenditure and cost per Head for the Year 1907—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND—*cont.*							
BOYS—*cont.*		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
St. Joseph's, R.C.	330	6,501 13 0	367 3 3	99 0 0	980 4 2	—	17 13 3
Liverpool	215	4,318 19 2	29 6 8	146 4 1	299 4 5	—	19 10 3
Grafton Street	208	3,702 1 9	—	239 7 6	118 3 0	—	18 7 8
St. George's, R.C.	270	4,767 12 4	31 2 6	99 10 10	632 3 4	—	15 16 0
St. Anne Street, R.C. ..	150	3,134 19 4	114 0 0	128 16 4	6 13 10	—	22 9 5
Beacon Lane, R.C.	199	3,580 16 4	106 8 0	86 13 6	112 8 6	—	18 7 11
St. Thomas', R.C.	162	2,807 6 5	467 10 0	132 8 9	99 12 1	—	20 8 4
Desford	199	4,734 7 4	—	285 1 5	—	194 19 2	26 2 1
Feltham	480	17,484 10 8	—	2,180 17 8	127 3 3	—	40 14 1
Boys' Home	139	4,599 11 10	536 2 9	45 11 2	—	63 3 3	37 14 7
Field Lane	122	3,348 4 6	600 0 0	102 15 7	616 1 6	—	28 3 1
Hayes	59	2,172 18 3	—	334 1 3	—	19 17 3	42 16 7
Buxton	64	1,443 1 8	—	47 0 11	182 0 4	—	20 8 11
Elswick, R.C.	68	1,154 9 3	100 0 0	14 10 0	0 5 6	—	18 13 3
Somerset	168	4,205 11 9	125 0 0	152 6 0	982 19 7	—	20 16 8
Cannington, R.C.	93	2,098 1 3	100 0 0	104 16 2	267 13 4	—	21 17 8
Stafford	124	3,301 5 11	—	131 17 2	—	32 18 6	27 19 1
Standon Bridge	89	1,637 2 8	50 10 6	97 2 11	56 6 3	—	19 8 5
Walsham-le-Willows ..	39	741 13 11	—	40 15 10	—	3 5 10	20 3 0
Mayford	179	5,332 1 8	—	212 6 6	6 12 10	—	30 18 9
Clapham Park	31	868 2 1	2 7 6	1 11 5	—	—	28 2 7
Acre Lane	29	1,083 17 5	—	—	—	—	37 7 6
Portslade	81	3,179 10 0	—	95 15 9	12 13 5	—	40 5 7
Shustoke	151	4,142 12 1	—	205 10 1	137 4 11	—	27 17 9
Harborne	129	2,833 6 2	—	72 13 6	128 17 10	—	21 10 7
Leeds	173	3,822 0 2	—	65 5 4	259 15 3	—	20 19 4
York	120	2,411 5 1	2 10 3	46 7 1	153 5 3	—	19 4 6
Middlesbrough	60	1,361 4 4	—	15 8 4	73 8 8	—	21 14 5
Shibden, R.C.	148	3,093 1 4	172 14 8	468 15 3	200 0 11	—	23 17 8
GIRLS.							
Cold Ash	30	648 14 11	—	5 17 8	12 1 3	—	21 8 5
Stockport	65	1,454 4 7	58 19 2	43 10 0	139 4 6	—	21 16 2
Plymouth	55	1,281 11 8	56 16 3	57 6 6	117 2 2	—	23 4 11
Dorset	84	1,973 10 9	8 7 2	30 0 0	—	—	23 19 0

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (E.)—SUMMARY.

INDUSTRIAL SCHOOLS.—RETURN showing the Expenditure and cost per Head for the Year 1907—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
ENGLAND—*cont.*							
GIRLS—*cont.*		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Sunderland	59	1,089 13 2	29 1 10	67 5 6	26 7 11	—	19 13 1
Darlington, R.C.	118	1,923 9 0	332 0 0	35 0 0	426 11 10	—	15 15 11
Halstead	62	1,332 1 7	25 0 0	21 12 7	—	—	22 4 9
Bristol	60	1,273 3 2	5 12 0	80 7 5	—	—	22 13 1
Carlton House	56	1,123 16 11	—	12 11 8	—	—	20 5 10
Portsmouth and S. Hants..	35	791 17 10	—	48 4 9	—	—	24 0 1
Sale	100	2,174 1 9	—	87 2 2	51 14 7	—	23 1 11
St. Joseph's, R.C.	158	3,186 13 2	224 9 0	125 4 1	328 2 4	—	20 6 1
Liverpool	100	2,124 18 4	—	172 19 7	159 6 11	—	21 7 9
Nile Street	80	1,500 14 2	—	83 15 0	—	—	19 10 1
St. Anne's, R.C.	152	2,997 12 6	142 14 5	95 8 3	312 8 8	—	19 4 8
St. Elizabeth's, R.C... ..	99	1,815 12 0	—	26 10 0	30 6 9	—	18 6 0
Blackbrook House, R.C. ..	120	1,843 17 7	80 0 0	116 0 0	—	—	17 0 0
Elm House	40	935 4 7	—	—	—	—	23 7 7
Maurice Girls' Home ..	31	620 12 1	41 16 11	7 10 0	11 9 8	—	21 4 10
King Edward	101	2,109 3 0	—	90 0 0	—	—	21 15 6
Gordon House	70	2,087 4 7	—	26 11 7	—	—	30 3 11
Nazareth House, R.C. ..	113	2,107 15 5	—	120 0 0	—	—	19 14 4
Stamford Hill..	13	735 8 11	—	5 6 2	7 9 0	—	56 8 2
Northumberland Village Homes.	119	3,249 6 5	—	58 7 2	689 15 4	—	22 0 0
Shipton-under-Wychwood	33	674 4 7	—	25 19 4	—	—	21 4 4
Bath	81	1,600 3 8	116 6 0	72 5 3	158 5 8	—	20 2 7
Lichfield	52	1,365 15 11	—	55 0 0	—	—	27 6 6
Princess Mary's	179	4,494 18 2	130 6 11	63 0 0	44 7 4	—	25 18 10
St. Mary's, W. Croydon, R.C.	150	3,166 13 11	230 0 0	204 10 0	—	—	24 0 2
Coventry	49	1,111 6 7	19 0 0	13 5 1	—	—	23 6 9
Salisbury, R.C.	105	2,330 10 8	5 3 6	36 15 0	433 16 9	—	18 9 3
Hull	47	986 8 0	—	19 9 2	55 17 9	—	20 4 3
Thorparch	98	2,385 11 4	—	114 19 7	224 7 4	—	23 4 6
Leeds	77	1,419 4 8	—	44 12 6	201 6 0	—	16 7 11
York	50	1,167 5 3	16 17 0	33 13 9	81 9 2	—	23 14 6
Yorkshire, R.C.	101	2,087 4 3	—	49 4 7	250 5 9	—	18 13 6
Beckett Home	29	523 8 7	—	27 3 0	—	—	18 19 9
MIXED SCHOOLS.							
Newcastle	135	3,543 12 6	—	119 0 0	623 17 6	—	22 10 2

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. IV. (E.)—SUMMARY.

INDUSTRIAL SCHOOLS.—RETURN showing the Expenditure and cost per Head for the Year 1907—*cont.*

INDUSTRIAL SCHOOL.	Average Number.	Total Cost of Maintenance and Management.	Add Rent.*	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
SCOTLAND.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
TRAINING SHIPS.							
"Empress"	400	7,702 5 7	40 0 0	147 19 0	3 13 2	—	19 14 4
"Mars"	398	8,829 19 7	—	427 0 5	—	—	23 5 2
BOYS.							
Aberdeen	116	2,300 2 7	81 3 8	44 14 10	278 15 9	—	18 10 3
Ayr	97	1,713 18 3	99 15 0	—	113 13 8	—	17 16 6
Dumfries	91	1,983 11 9	27 16 10	35 19 0	102 6 5	—	21 7 6
Leith	134	2,161 17 11	—	61 7 6	152 9 5	—	15 9 1
Tranent, R.C.	196	3,013 9 0	127 12 2	10 0 2	—	122 9 5	16 14 0
Arbroath	31	548 4 10	—	—	36 0 6	—	16 10 6
Dundee	217	3,605 1 6	—	—	321 17 11	—	15 2 7
Mossbank	382	8,582 4 8	—	198 14 7	1,119 15 0	—	20 1 1
Glasgow, R.C. Orphanage ..	199	3,441 6 9	687 5 9	45 11 0	377 5 7	—	19 1 7
Slatefield, R.C.	149	2,860 3 11	251 19 8	45 0 0	336 12 5	—	18 18 7
Perth Fechney	141	2,657 1 9	48 18 8	70 9 7	452 19 10	—	16 9 7
Greenock	138	2,089 17 0	7 11 6	—	—	2 5 6	15 4 4
Paisley	119	2,515 16 10	—	—	137 13 5	—	19 19 8
GIRLS.							
Aberdeen Female	63	1,083 1 2	117 0 0	27 0 0	—	—	19 9 7
Aberdeen, R.C.	130	1,471 11 1	65 10 0	149 7 6	—	—	12 19 5
Ayr	60	1,005 11 3	—	23 15 2	36 2 6	—	16 11 1
Leith	60	857 15 11	—	41 15 3	32 0 3	—	14 9 2
Dundee	118	1,893 7 4	—	—	61 8 8	—	15 10 6
Maryhill	210	4,704 14 1	—	432 18 1	25 18 5	—	24 8 10
Glasgow, R.C. Orphanage ..	189	2,861 2 8	400 0 0	120 7 9	17 16 9	—	17 15 11
Dalbeth, R.C.	149	2,515 10 5	96 4 5	113 0 5	108 9 10	—	17 15 2
Perth Craigie	60	955 3 4	25 6 8	54 14 2	—	—	17 5 1
Perth	60	1,071 9 7	11 17 6	88 16 2	75 19 1	—	18 5 5
Greenock	40	785 8 9	30 15 7	9 0 0	—	4 12 10	20 14 11
Stirling	30	409 5 11	—	6 0 0	10 11 9	—	13 9 10
Newton Stewart	48	661 4 4	—	22 0 0	—	—	14 4 8
MIXED SCHOOLS.							
Kilmarnock	101	1,661 14 9	42 2 9	73 4 1	236 9 7	—	14 19 2
Edinburgh, Original ..	270	4,960 10 2	138 15 0	209 15 7	282 14 8	—	18 12 4

* Rent of farm premises is dealt with in Industrial Profit or Loss.

APPENDIX No. V. (A. and B.)

Truant Industrial Schools.—Return of Admissions,

School.	Total under Detention 31st December, 1906.	Admissions in 1907.							Average Number.		
		Under 6.	From 6 to 8.	From 8 to 10.	From 10 to 12.	From 12 to 14.	Transferred from other Schools.	Total Admissions.		Attained 14.	Medically unfit.
North London	370	—	1	15	26	50	—	92	80	116	—
West Ham	121	—	—	4	18	16	—	38	37	44	—
South Wales and Monmouth	267	—	—	17	29	45	—	91	73	112	—
Cardiff and Barry	356	—	—	15	52	74	63	204	97	167	—
Bristol	118	—	—	1	1	2	—	4	—	56	—
Hightown, Protestant ..	331	—	—	17	42	49	—	108	42	97	—
Hightown, Roman Catholic	345	—	—	22	61	73	—	156	66	94	—
Upton House	258	—	3	23	27	44	—	97	115	119	—
Highbury	348	—	3	14	36	53	—	106	162	135	—
Isleworth	169	—	2	11	19	28	2	62	61	73	—
Lichfield	187	—	—	16	32	26	—	74	82	90	—
Hull	267	—	—	2	16	33	—	51	41	78	1
Sheffield	341	—	—	9	53	36	—	98	76	86	—
Shettleston	328	—	—	24	91	137	—	252	138	130	—
Total	3,806	—	9	190	503	666	65	1,433	1,070	1,397	1

APPENDIX No. V. (A. and B.)

DISCHARGES, &c., for the Year ending December 31, 1907.

Discharges in 1907.						Under Detention, 31st December, 1907.				SCHOOL.
Sent to Industrial School by order of Court.	Committed to Reformatory School.	Transferred to Industrial School.	Died.	Absconded.	Total Discharges.	In School.	On Licence.	Absconded.	Total.	
—	—	1	1	—	118	69	275	—	344	North London.
—	—	—	—	—	44	43	72	—	115	West Ham.
—	—	—	—	—	112	72	174	—	246	South Wales and Monmouth.
—	—	—	—	—	167	119	274	—	393	Cardiff and Barry.
3	—	63	—	—	122	—	—	—	—	Bristol.
—	2	—	—	—	99	52	288	—	340	Hightown, Protestant.
3	8	2	—	—	107	78	316	—	394	Hightown, Roman Catholic.
9	—	—	1	—	129	121	105	—	226	Upton House.
8	—	1	1	—	145	161	148	—	309	Highbury.
5	—	—	—	—	78	59	94	—	153	Isleworth.
—	—	—	—	—	90	86	85	—	171	Lichfield.
2	5	—	—	—	86	45	187	—	232	Hull.
—	9	—	1	—	96	71	272	—	343	Sheffield.
22	—	—	1	—	153	149	278	—	427	Shettleston.
52	24	67	5	—	1,546	1,125	2,568	—	3,693	Total.

APPENDIX No. V. (C.)

TRUANT INDUSTRIAL SCHOOLS, RETURNS of

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	ENGLAND.						
	NORTH LONDON.	WEST HAM.	SOUTH WALES AND MONMOUTH.	CARDIFF AND BARRY.	BRISTOL.*	HIGHTOWN.	UPTON HOUSE.
Average Number of Inmates	Boys. 80	Boys. 37	Boys. 73	Boys. 97	Boys. 21	Boys. 108	Boys. 115
Number of Officers	10	8	8	9	7	16	17
RECEIPTS.	£	£	£	£	£	£	£
Treasury Grant	513	194	435	545	150	885	625
County and Borough Rates..	—	—	—	—	—	—	—
Education Authority Rates..	1,404	1,116	1,572	1,553	348	1,883	4,072
Parochial Authorities ..	—	—	—	—	—	—	—
Sundries	—	115	2	—	52	—	46
TOTAL RECEIPTS ..	1,917	1,425	2,009	2,098	550	2,768	4,743
EXPENDITURE.							
Officers' Salaries and Allowances.	636	564	658	689	255	1,304	1,530
Food of Inmates	572	179	395	610	132	517	625
Clothing	57	38	38	215	13	216	315
Washing, Fuel, Light, and Furniture.	226	92	262	258	65	335	624
Repairs, Rates, and Taxes ..	167	178	231	246	54	180	723
Printing and Office Expenses	151	7	114	137	4	45	63
Travelling and Police ..	—	9	—	—	2	48	4
Medical Expenses	52	46	74	31	21	114	139
Sundries	4	307	44	24	2	3	31
Total Ordinary Charges	1,865	1,420	1,816	2,210	548	2,762	4,054
Cost per head for Maintenance and Management.	23·3	38·4	24·9	22·8	—	25·6	35·2
Ditto Food	7·1	4·8	5·4	6·3	—	4·8	5·4
Extra Charges.							
Rent	—	—	—	—	—	—	—
Disposal on Discharge ..	—	5	—	—	—	3	—
Building and Capital Account	—	—	100	—	—	—	680
Refunded to Associated Authorities.	—	—	—	—	—	—	—
Total Extra Charges ..	—	5	100	—	—	3	680
TOTAL EXPENDITURE..	1,865	1,425	1,916	2,210	548	2,765	4,734
Industrial Departments.							
Profit	—	—	—	93	—	—	—
Loss	87	—	—	—	—	3	1

* School closed during the year.

APPENDIX No. V. (C.)

RECEIPTS and EXPENDITURE of, for 1907.

the nearest £ ; cost per head to the nearest tenth of a £.

ENGLAND.					SCOTLAND.	
HIGHBURY.	HOLME COURT.	MIDLAND.	HULL.	SHEFFIELD.	SHETTLESTON.	RECEIPTS AND EXPENDITURE.
Boys. 162	Boys. 61	Boys. 82	Boys. 41	Boys. 76	Boys. 138	Average Number of Inmates.
18	7	9	5	11	14	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
923	353	599	400	713	780	Treasury Grant
—	25	—	—	—	—	County and Borough Rates.
4,210	1,140	1,481	529	1,257	3,454	Education Authority Rates.
—	—	—	—	—	—	Parochial Authorities.
9	—	14	26	—	—	Sundries.
5,142	1,518	2,094	955	1,970	4,214	TOTAL RECEIPTS.
						EXPENDITURE.
1,615	559	686	413	677	1,084	Officers' Salaries and Allowances.
913	302	481	228	396	1,013	Food of Inmates.
491	74	103	140	158	304	Clothing „
932	132	237	111	262	585	Washing, Fuel, Light, and Furniture.
561	111	222	80	157	938	Repairs, Rates, and Taxes.
35	122	107	7	36	72	Printing and Office Expenses.
7	—	64	—	23	1	Travelling and Police.
158	41	65	21	44	66	Medical Expenses.
46	—	80	—	4	20	Sundries.
4,758	1,341	2,045	1,000	1,747	4,083	Total Ordinary Charges.
29·4	22·0	24·9	24·4	23·0	29·6	Cost per head for Maintenance and Management.
5·6	4·9	5·8	5·5	5·2	7·3	Ditto Food.
						Extra Charges.
—	—	—	—	156	—	Rent.
3	—	—	—	—	—	Disposal on Discharge.
350	—	—	—	—	—	Building and Capital Account.
—	—	—	—	—	—	Refunded to Associated Authorities.
353	—	—	—	156	—	Total Extra Charges.
5,111	1,341	2,045	1,000	1,903	4,083	TOTAL EXPENDITURE.
						Industrial Departments.
—	16	—	23	4	—	Profit.
—	—	—	—	—	113	Loss.

APPENDIX No. V. (D.)

RETURNS relating specially to TRUANT SCHOOLS,

——	North London.	West Ham.	S. Wales and Monmouth.	Cardiff and Barry.	Bristol.	Hightown, Protestant.	Ditto, Roman Catholic.
Total Number admitted up to 31 December, 1907.	3,923	1,997	2,128	1,540	2,419	3,792	3,870
Licensed and not re-admitted	2,312	923	1,424	717	1,280	1,872	1,885
Licensed and once re-admitted	934	554	452	387	772	948	956
Licensed and twice re-admitted.	387	264	130	142	272	420	515
Licensed and three times re-admitted.	154	130	63	40	77	209	220
Licensed and four times and upwards re-admitted.	85	85	33	8	12	170	130
Total	3,872	1,956	2,102	1,294	2,413	3,619	3,706
Total Number licensed in 1907	125	58	169	168	32	146	211
Licensed and not re-admitted	105	41	124	116	32	122	159
Licensed and once re-admitted	20	17	32	47	—	21	41
Licensed and twice re-admitted.	—	—	13	5	—	3	11
Licensed and three times re-admitted.	—	—	—	—	—	—	—
Total	125	58	169	168	32	146	211
Total Number admitted in 1907	92	38	91	204	4	108	156
Licensed and not re-admitted	54	13	57	81	4	63	93
Licensed and once re-admitted	2	5	6	28	—	8	20
Licensed and twice re-admitted.	—	—	1	—	—	—	1
Licensed and three times re-admitted.	—	—	—	—	—	—	—
Total	56	18	64	109	4	71	114
Average detention :	Days.	Days.	Days.	Days.	Days	Days.	Days.
1st admission	177	126	75	94	119	76	72
1st re-admission	189	175	100	123	—	198	85
2nd re-admission..	212	291	183	170	—	—	—

APPENDIX No. V. (D.)

showing ADMISSIONS and RESULTS.

Upton House.	Highbury.	Isleworth.	Lichfield.	Hull.	Sheffield.	Glasgow.	Total.	—
6,196	5,107	1,686	2,098	2,726	2,844	684	41,010	Total Number admitted up to 31 December, 1907.
3,382	2,605	831	1,139	1,130	1,312	281	21,093	Licensed and not re-admitted.
1,465	1,266	480	538	610	910	196	10,468	Licensed and once re-admitted.
709	656	195	205	402	358	101	4,756	Licensed and twice re-admitted.
324	289	69	97	309	123	—	2,104	Licensed and three times re-admitted.
201	176	30	71	250	53	—	1,304	Licensed and four times and upwards re-admitted.
6,081	4,992	1,605	2,050	2,701	2,756	578	39,725	Total.
173	164	115	119	117	180	230	2,007	Total Number licensed in 1907.
135	136	90	91	97	126	156	1,530	Licensed and not re-admitted.
38	28	25	28	19	53	69	438	Licensed and once re-admitted.
—	—	—	—	1	1	5	39	Licensed and twice re-admitted.
—	—	—	—	—	—	—	—	Licensed and three times re-admitted.
173	164	115	119	117	180	230	2,007	Total.
97	106	62	74	51	98	252	1,433	Total Number admitted in 1907.
29	21	27	32	19	50	135	668	Licensed and not re-admitted.
3	—	3	8	14	17	51	165	Licensed and once re-admitted.
—	—	—	—	—	—	1	3	Licensed and twice re-admitted.
—	—	—	—	—	—	—	—	Licensed and three times re-admitted.
32	21	30	40	33	67	187	846	Total.
Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Average detention.
246	253	167	131	92	98	91	130	1st admission.
262	141	220	—	118	190	121	179	1st re-admission.
307	316	230	—	146	192	182	226	2nd re-admission.

APPENDIX No. VI. (A. AND B.)

DAY INDUSTRIAL SCHOOLS.—

SCHOOL.		Total under Detention 31 December, 1906.	ADMISSIONS IN 1907.				ADMISSIONS SINCE ESTABLISHMENT.		Average Attendance in 1907.	DISCHARGES IN 1907.			
			Under Order of Detention.	Under Attendance Order.	Without Order.	Total.	Committed.	Without Order.		By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.
ENGLAND.													
Bristol	Boys	60	60	—	5	65	1,978	132	70	43	—	4	47
	Girls	54	34	—	—	34	982	17	55	26	—	2	28
South Corporation ..	Boys	178	49	—	10	59	3,216	278	129	87	3	8	98
	Girls	94	35	—	5	40	1,899	44	76	38	1	1	40
Bond Street	Boys	201	61	—	4	65	3,409	402	157	80	—	13	93
	Girls	125	46	—	2	48	1,820	36	108	44	—	5	49
Queensland Street ..	Boys	133	36	—	4	40	1,742	211	110	56	2	4	62
	Girls	107	34	—	9	43	961	74	78	43	—	6	49
Addison Street ..	Boys	149	55	—	5	60	1,114	116	129	57	2	13	72
	Girls	123	37	—	3	40	582	35	100	51	—	4	55
Kirkdale	Boys	171	47	—	9	56	1,736	1,375	—	214	—	13	227
	Girls	120	44	—	8	52	1,011	1,309	—	169	—	3	172
Walton Road	Boys	—	136	—	15	151	136	15	—	9	—	4	13
	Girls	—	124	—	8	132	124	8	—	7	—	—	7
Manchester	Boys	182	98	—	—	98	2,146	—	153	84	4	4	92
	Girls	81	54	—	—	54	694	—	75	31	—	—	31
Salford	Boys	108	48	—	—	48	1,996	19	95	72	1	5	78
	Girls	53	33	—	—	33	632	4	53	33	—	2	35
Blackburn	Boys	28	—	—	—	—	520	5	—	28	—	—	28
	Girls	11	—	—	—	—	109	3	—	11	—	—	11
Bootle	Boys	94	29	34	10	73	1,006	115	81	55	—	2	57
	Girls	64	6	32	3	41	478	41	50	35	—	—	35
Drury Lane	Boys	103	26	—	18	44	977	28	93	51	—	6	57
	Girls	10	3	—	—	3	138	3	6	6	—	—	6
Brunswick Road ..	Boys	68	20	—	17	37	303	50	61	41	—	3	44
	Girls	17	7	—	1	8	82	11	16	13	—	1	14

APPENDIX No. VI. (A. AND B.)

ADMISSIONS and DISCHARGES, 1907.

DISCHARGES SINCE ESTABLISHMENT.				UNDER DETENTION 31 DECEMBER, 1907.					SCHOOL.	
By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.	Under Order of Detention.	Under Attendance Order.	Without Order.	On Licence.	Total.		
									ENGLAND.	
1,491	18	523	2,032	72	—	5	1	78	Boys	Bristol.
783	3	153	939	60	—	—	—	60	Girls	
2,927	48	380	3,355	109	—	19	11	139	Boys	South Corporation.
1,747	4	98	1,849	78	—	6	10	94	Girls	
2,758	30	850	3,638	144	—	15	14	173	Boys	Bond Street.
1,567	7	158	1,732	108	—	6	10	124	Girls	
1,615	6	221	1,842	90	—	13	8	111	Boys	Queensland Street.
875	1	58	934	68	—	23	10	101	Girls	
816	19	258	1,093	120	—	12	5	137	Boys	Addison Street.
460	—	49	509	94	—	5	9	108	Girls	
2,724	137	250	3,111	—	—	—	—	—	Boys	Kirkdale.
2,286	—	34	2,320	—	—	—	—	—	Girls	
9	—	4	13	119	—	14	5	138	Boys	Walton Road.
7	—	—	7	108	—	8	9	125	Girls	
1,718	34	206	1,958	156	—	—	32	188	Boys	Manchester.
564	2	24	590	78	—	—	26	104	Girls	
1,743	20	174	1,937	77	—	—	1	78	Boys	Salford.
571	—	14	585	51	—	—	—	51	Girls	
460	18	47	525	—	—	—	—	—	Boys	Blackburn.
108	—	4	112	—	—	—	—	—	Girls	
950	31	30	1,011	52	34	23	1	110	Boys	Bootle.
439	1	9	449	25	31	13	1	70	Girls	
817	2	96	915	72	—	18	—	90	Boys	Drury Lane.
132	—	2	134	7	—	—	—	7	Girls	
264	—	28	292	49	—	12	—	61	Boys	Brunswick Road.
75	—	7	82	11	—	—	—	11	Girls	

APPENDIX No. VI. (A. AND B.)

DAY INDUSTRIAL SCHOOLS.—Admissions

SCHOOL.		Total under Detention 31 December, 1906	ADMISSIONS IN 1907.				ADMISSIONS SINCE ESTABLISHMENT.		Average Attendance in 1907.	DISCHARGES IN 1907.			
			Under Order of Detention.	Under Attendance Order.	Without Order.	Total.	Committed.	Without Order.		By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.
ENGLAND—*continued.*													
Ponton Road ..	Boys	48	37	—	6	43	228	10	44	31	—	8	39
	Girls	2	8	—	—	8	20	—	7	—	—	—	—
Wolverhampton ..	Boys	28	23	—	1	24	883	1	28	15	—	—	15
	Girls	12	7	—	2	9	320	2	12	6	—	—	6
Edgar Street ..	Boys	78	24	—	4	28	1,477	18	63	38	—	11	49
	Girls	39	17	—	3	20	627	11	31	23	—	—	23
Czar Street	Boys	51	13	—	13	26	525	30	44	31	—	—	31
	Girls	33	19	—	10	29	251	21	27	26	—	—	26
SCOTLAND.													
Edinburgh	Boys	125	79	—	6	85	744	82	123	53	3	7	63
	Girls	19	21	—	3	24	112	6	21	8	—	—	8
Rotten Row.. ..	Boys	132	59	2	17	78	1,684	278	118	60	2	15	77
	Girls	106	50	—	9	59	819	155	100	43	—	8	51
Green Street ..	Boys	118	73	4	40	117	1,667	434	101	110	—	12	122
	Girls	70	48	—	33	81	911	243	65	66	—	2	68
Rose Street	Boys	120	61	1	9	71	1,216	142	96	58	—	12	70
	Girls	92	59	—	7	66	620	71	74	49	—	8	57
William Street ..	Boys	60	29	2	11	42	243	32	50	41	—	7	48
	Girls	44	29	—	1	30	136	11	40	14	—	4	18
ABSTRACT.													
ENGLAND	Boys	1,080	762	34	121	917	23,392	2,805	1,257	992	12	98	1,102
	Girls	945	508	32	54	594	10,630	1,619	694	562	1	24	587
SCOTLAND	Boys	555	301	9	83	393	5,554	968	488	322	5	53	380
	Girls	331	207	—	53	260	2,598	486	300	180	—	22	202
TOTAL	Boys	2,235	1,063	43	204	1,310	28,946	3,773	1,745	1,314	17	151	1,482
	Girls	1,276	715	32	107	854	13,228	2,105	994	742	1	46	789

APPENDIX No. VI. (A. AND B.)

and Discharges, 1907—*continued.*

Discharges since Establishment.				Under Detention 31 December, 1907.						School.
By expiration of Sentence or by Death.	Committed to Reformatories.	Committed to Industrial Schools.	Total.	Under Order of Detention.	Under Attendance Order.	Without Order.	On Licence.	Total.		
										ENGLAND—*continued.*
158	1	27	186	47	—	5	—	52	Boys	Ponton Road.
9	—	1	10	10	—	—	—	10	Girls	
814	16	17	847	36	—	1	—	37	Boys	Wolverhampton.
303	1	3	307	13	—	2	—	15	Girls	
1,277	12	149	1,438	46	—	4	7	57	Boys	Edgar Street.
489	—	13	502	27	—	5	4	36	Girls	
468	2	39	509	25	—	14	7	46	Boys	Czar Street.
232	—	4	236	23	—	8	5	36	Girls	
										SCOTLAND.
575	28	76	679	140	—	6	1	147	Boys	Edinburgh.
75	4	4	83	33	—	2	—	35	Girls	
1,567	12	250	1,829	127	2	1	3	133	Boys	Rotten Row.
800	2	58	860	108	—	—	6	114	Girls	
1,759	14	215	1,988	103	4	1	5	113	Boys	Green Street.
1,022	—	49	1,071	73	—	1	9	83	Girls	
1,051	3	183	1,237	115	—	—	6	121	Boys	Rose Street.
554	—	36	590	92	—	2	7	101	Girls	
178	8	35	221	47	1	1	5	54	Boys	William Street.
81	—	10	91	52	—	1	3	56	Girls	
										ABSTRACT.
21,009	394	3,299	24,702	1,214	34	155	92	1,495	Boys	England.
10,647	19	631	11,297	761	31	76	84	952	Girls	
5,130	65	759	5,954	532	7	9	20	568	Boys	Scotland.
2,532	6	157	2,695	358	—	6	25	389	Girls	
26,139	459	4,058	30,656	1,746	41	164	112	2,063	Boys	Total.
13,179	25	788	13,992	1,119	31	82	109	1,341	Girls	

APPENDIX No. VI. (C.)

Day Industrial Schools.—Receipts

Note.—Items of Receipts and Expenditure are given to

Receipts and Expenditure.	Bristol.	Liverpool, South Corporation.	Liverpool, Bond Street.	Liverpool, Queensland Street.	Liverpool, Addison Street.	Liverpool, Kirkdale.*
Average Number of Inmates	125	205	265	188	229	—
Number of Officers	8	15	15	14	15	15
Receipts.	£	£	£	£	£	£
Treasury Grant	313	542	700	470	597	608
Education Authority Rates..	1,191	1,755	1,880	1,895	2,124	1,438
Payments from Parents ..	92	122	153	126	112	145
Payments from Guardians on behalf of Parents.	22	8	27	—	18	—
Subscriptions, &c.	—	—	—	—	—	—
Sundries	—	—	—	1	3	8
Total Receipts ..	1,618	2,427	2,740	2,492	2,854	2,199
Expenditure.						
Officers' Salaries and Allowances.	674	1,422	1,402	1,431	1,563	1,211
Food of Inmates	489	643	763	584	696	673
Washing, Fuel, Light, and Furniture.	161	127	159	142	149	114
Rates, Taxes, and Repairs ..	218	71	246	160	255	30
Printing, Books, and School Expenses.	33	105	98	117	114	113
Medical Expenses	21	57	69	56	75	58
Rent of Premises	—	—	—	—	—	—
Sundries	22	2	3	2	2	—
Total	1,618	2,427	2,740	2,492	2,854	2,199
Average Cost per Head ..	12·9	11·8	10·3	13·3	12·5	—
„ for Food ..	3·9	3·1	2·9	3·1	3·0	—
Extra Charges.						
Building and Capital Account	—	—	—	—	—	—
Total Expenditure ..	1,618	2,427	2,740	2,492	2,854	2,199
Profit on Industrial Department.	—	—	—	—	—	—
Loss „ „	—	—	—	—	—	—

* School closed during the year.

APPENDIX No. VI. (C.)

and EXPENDITURE for 1907.

the nearest £ ; cost per head to the nearest tenth of a £.

LIVERPOOL, WALTON ROAD.†	SALFORD.	MANCHESTER.	BLACKBURN.*	BOOTLE.	LONDON, DRURY LANE.	RECEIPTS AND EXPENDITURE.
—	148	238	19	131	99	Average Number of Inmates.
15	10	14	5	14	8	Number of Officers.
£	£	£	£	£	£	RECEIPTS.
—	401	601	55	270	217	Treasury Grant.
228	968	1,590	440	1,715	1,446	Education Authority Rates.
15	168	206	9	44	144	Payments from Parents.
—	—	—	—	—	-	Payments from Guardians on behalf of Parents.
—	—	—	—	—	—	Subscriptions, &c.
4	41	12	—	—	23	Sundries.
247	1,578	2,409	504	2,029	1,830	TOTAL RECEIPTS.
						EXPENDITURE
166	869	1,113	277	1,119	858	Officers' Salaries and Allowances.
4	430	759	114	425	348	Food of Inmates.
55	142	356	63	168	148	Washing, Fuel, Light, and Furniture.
—	92	152	49	126	287	Rates, Taxes, and Repairs.
19	24	49	—	11	20	Printing, Books, and School Expenses.
3	26	20	—	16	25	Medical Expenses.
—	—	20	—	—	—	Rent of Premises.
—	—	74	2	164	35	Sundries.
247	1,583	2,523	505	2,029	1,721	Total.
—	10·7	11·1	—	15·5	17·4	Average Cost per Head.
—	2·9	3·3	—	3·2	3·5	„ for Food.
						Extra Charges.
—	—	—	—	—	—	Building and Capital Account.
247	1,583	2,523	505	2,029	1,721	TOTAL EXPENDITURE.
—	5	114	3	—	—	Profit on Industrial Department.
—	—	—	—	—	119	Loss „ „

† School opened during the year.

APPENDIX No. VI. (C.)

DAY INDUSTRIAL SCHOOLS.—Receipts

NOTE.—Items of Receipts and Expenditure are given to

RECEIPTS AND EXPENDITURE.	LONDON, BRUNSWICK ROAD.	LONDON, PONTON ROAD.	WOLVERHAMPTON.	LEEDS, EDGAR STREET.	LEEDS, CZAR STREET.
Average Number of Inmates	77	51	40	94	71
Number of Officers	9	6	5	5	5
RECEIPTS.	£	£	£	£	£
Treasury Grant	231	126	109	253	160
Education Authority Rates..	2,115	1,477	433	739	516
Payments from Parents ..	177	89	71	63	76
Payments from Guardians on behalf of Parents.	—	—	10	—	—
Subscriptions, &c.	—	—	—	—	—
Sundries	—	—	—	1	—
TOTAL RECEIPTS ..	2,523	1,692	623	1,056	752
EXPENDITURE.					
Officers' Salaries and Allowances.	1,025	742	403	371	318
Food of Inmates	323	166	137	414	291
Washing, Fuel, Light, and Furniture.	249	153	45	104	68
Rates, Taxes, and Repairs ..	436	367	52	122	57
Printing, Books, and School Expenses.	20	18	6	24	16
Medical Expenses	19	7	1	4	3
Rent of Premises	—	—	—	19	—
Sundries	76	12	5	1	2
Total	2,148	1,465	654	1,059	755
Average Cost per Head ..	27·9	28·7	16·3	11·3	10·6
„ for Food ..	4·2	3·3	3·4	4·4	4·1
Extra Charges.					
Building and Capital Account	288	162	—	—	—
TOTAL EXPENDITURE	2,436	1,627	654	1,059	755
Profit on Industrial Department.	—	—	31	3	3
Loss „ „	85	74	—	—	—

APPENDIX No. VI. (C.)

and Expenditure for 1907—*continued.*

the nearest £; cost per head to the nearest tenth of a £.

Edinburgh.	Glasgow, Rotten Row.	Glasgow, Green Street.	Glasgow, Rose Street.	Glasgow, William Street.	Receipts and Expenditure.
144	218	166	170	90	Average Number of Inmates.
7	13	13	13	8	Number of Officers.
£	£	£	£	£	Receipts.
383	566	428	451	238	Treasury Grant.
793	736*	1,114*	963*	662*	Education Authority Rates.
201	250	153	202	118	Payments from Parents.
—	124	103	49	31	Payments from Guardians on behalf of Parents.
—	—	—	—	—	Subscriptions, &c.
1	21	13	48	31	Sundries.
1,378	1,697	1,811	1,713	1,080	Total Receipts.
					Expenditure.
649	668	649	650	400	Officers' Salaries and Allowances.
345	605	589	528	324	Food of Inmates.
108	136	179	190	74	Washing, Fuel, Light, and Furniture.
236	179	274	229	166	Rates, Taxes, and Repairs.
26	48	83	51	46	Printing, Books, and School Expenses.
—	21	23	17	22	Medical Expenses.
—	—	—	—	15	Rent of Premises.
14	44	27	38	31	Sundries.
1,378	1,701	1,824	1,703	1,078	Total.
9·6	7·8	11·0	10·0	12·0	Average Cost per Head.
2·4	2·8	3·5	3·1	3·6	„ for Food.
					Extra Charges.
—	—	—	—	—	Building and Capital Account.
1,378	1,701	1,824	1,703	1,078	Total Expenditure.
—	—	5	—	—	Profit on Industrial Department.
—	9	—	9	3	Loss „ „

* Payments by Glasgow Juvenile Delinquency Board.

APPENDIX No. VII. (A.)

RETURN showing the Number and Causes of DEATHS in REFORMATORY SCHOOLS during the Year 1907.

(Names of Schools where no deaths have occurred are omitted.)

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the						Drowned.	Rheumatic Fever.
			Lungs and Chest.	Heart.	Brain.	Bones.	Skin.	Hip.		
ENGLAND.										
Boys.										
"Cornwall"... ...	255	3	1	—	—	—	—	—	2	—
"Akbar"	207	2	1	—	—	—	—	1	—	—
Liverpool Farm ...	153	1	1	—	—	—	—	—	—	—
Castle Howard ...	97	1	—	—	1	—	—	—	—	—
Leeds...	149	1	—	—	—	—	1	—	—	—
Market Weighton ...	196	3	1	1	—	—	—	—	—	1
Total	3,466	11	4	1	1	—	1	1	2	1
Girls.										
Red Lodge	41	1	—	—	1	—	—	—	—	—
Total	478	1	—	—	1	—	—	—	—	—
SCOTLAND.										
Boys.										
Parkhead	199	1	—	—	—	1	—	—	—	—
Total	591	1	—	—	—	1	—	—	—	—
Girls.										
Dalry...	44	1	1	—	—	—	—	—	—	—
Total	99	1	1	—	—	—	—	—	—	—

APPENDIX No. VII. (B.)

RETURN showing the Number and Causes of Deaths in INDUSTRIAL SCHOOLS during the Year 1907.

(Names of Schools where no deaths have occurred are omitted.)

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the				Typhoid Fever.	Phthisis.	Tuberculosis.	Rheumatism.	Paralysis.	Twisted Intestine.	Motor Omnibus Accident.	Convulsions.	Asphyxia.	Cancer.	Bowel Complaints.
			Lungs.	Heart.	Brain.	Kidneys.											
ENGLAND																	
BOYS, PROTESTANT.																	
Chester	63	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
"Mt. Edgcumbe"	208	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Cumberland	129	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Sunderland	101	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Gateshead	116	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Clifton	193	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
National Nautical	321	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Bolton	204	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Barnes' Home	259	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Desford	199	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Feltham	480	2	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Boys' Home	139	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Newcastle	114	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mayford	179	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Clapham Park	31	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Southampton"	195	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Total	7,004	19	5	1	5	1	1	1	—	1	—	1	1	—	—	1	1
GIRLS, PROTESTANT.																	
Carlton House	56	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Liverpool Girls'	100	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Elm House	40	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
King Edward	101	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Total	1,803	4	—	2	—	—	—	1	—	—	—	—	—	—	—	1	—

APPENDIX No. VII. (B.)

Industrial Schools.

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1907—*continued*.

(Names of Schools where no deaths have occurred are omitted.)

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the Lungs.	Heart.	Brain.	Kidneys.	Typhoid Fever.	Phthisis.	Tuberculosis.	Rheumatism.	Paralysis.	Twisted Intestine.	Motor Omnibus Accident.	Convulsions.	Asphyxia.	Cancer.	Bowel Complaints.
ENGLAND—*cont.*																	
BOYS, ROMAN CATHOLIC.																	
Chadwick	197	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Ilford	219	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Whitstable	54	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
St. George's	270	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Anne St.	150	2	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Beacon Lane	199	2	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—
Elswick	68	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Shibden	148	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Total	2,227	11	2	1	3	—	—	2	1	—	1	—	—	—	—	—	1
GIRLS, ROMAN CATHOLIC.																	
Darlington	118	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
St. Joseph's Girls	158	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
St. Anne's	152	2	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—
St. Elizabeth's, Liverpool	99	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blackbrook House	120	2	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Nazareth House	113	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Total	1,116	8	2	—	1	—	—	1	1	2	—	—	—	—	—	—	1
SCOTLAND.																	
BOYS, PROTESTANT.																	
Kilmarnock	76	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
"Empress"	400	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Dumfries	91	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
"Mars"	398	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Mossbank	382	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Greenock Boys	138	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2,536	8	3	—	1	—	1	1	—	—	—	—	—	—	1	—	1

APPENDIX No. VII. (B.)

INDUSTRIAL SCHOOLS.

Return showing the Number and Causes of Deaths in Industrial Schools during the Year 1907—*continued*.

(Names of Schools where no deaths have occurred are omitted.)

—	Average No. of Inmates.	No. of Deaths.	From Diseases of the				Typhoid Fever.	Phthisis.	Tuberculosis.	Rheumatism.	Paralysis.	Twisted Intestine.	Motor Omnibus Accident.	Convulsions.	Asphyxia.	Cancer.	Bowel Complaints.
			Lungs.	Heart.	Brain.	Kidneys.											
SCOTLAND—*cont.*																	
GIRLS, PROTESTANT.																	
Leith	60	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Maryhill	210	2	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Total	848	3	—	—	—	—	—	2	—	—	—	—	—	—	—	—	1
BOYS, ROMAN CATHOLIC.																	
Tranent	196	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glasgow Orphanage ..	199	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Total	544	2	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—
GIRLS, ROMAN CATHOLIC.																	
Dalbeth	149	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Total	468	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—

APPENDIX No. VIII. (A.)

Re-convictions after Detention in a Reformatory School.

Return from Governors of Prisons of Males and Females re-convicted during the Year ending December 31, 1907, after Detention in a Reformatory School.

ENGLAND AND WALES.

Counties.	Prisons.	Males.	Females.
Bedford	Bedford	3	—
Berkshire	Reading	7	—
Cambridge	Cambridge	5	1
Cheshire	Knutsford	1	—
Cornwall	Bodmin	1	—
Cumberland	Carlisle	7	1
Derby	Derby	5	—
Devon	Exeter	13	—
	Plymouth	1	—
Durham	Durham	13	1
Essex	Chelmsford	3	—
Gloucester	Gloucester	7	—
	Bristol	20	—
Hants	Winchester	22	—
	Portsmouth	4	—
Hereford	Hereford	2	—
Herts	St. Albans	6	—
Kent	Canterbury	10	1
	Maidstone	4	1
Lancashire	Lancaster	3	—
	Preston	30	3
	Manchester (Strangeways)	62	1
	Liverpool (Walton)	83	1
Leicester	Leicester	9	—
Lincoln	Lincoln	1	—
Middlesex	Pentonville	27	—
	Wormwood Scrubbs	12	—
	Holloway	—	1
Monmouth	Usk	3	—
Norfolk	Norwich	5	—
Northampton	Northampton	8	1
Northumberland	Newcastle-on-Tyne	10	1
Nottingham	Nottingham	7	—
Oxford	Oxford	3	—
Shropshire	Shrewsbury	7	—
Somerset	Shepton Mallet	1	—
Stafford	Stafford	19	—
Suffolk	Ipswich	7	—

APPENDIX No. VIII. (A.)

RETURN from Governors of Prisons of Males and Females re-convicted during the Year ending December 31, 1907, after Detention in a Reformatory School—*continued.*

ENGLAND AND WALES—*continued.*

Counties.	Prisons.	Males.	Females.
SURREY	Wandsworth	17	—
SUSSEX	Lewes	8	1
WARWICK	Birmingham	28	—
	Warwick	2	—
WILTSHIRE	Devizes	5	—
WORCESTER	Worcester	7	—
YORK	Kingston (Hull)	14	1
	Leeds	20	3
	Northallerton	16	—
	Wakefield	21	—
BRECKNOCK	Brecon	2	—
CARMARTHEN	Carmarthen	2	—
CARNARVON	Carnarvon	2	—
DENBIGH	Ruthin	4	—
GLAMORGAN	Cardiff	8	—
	Swansea	12	—
	Total	599	18

SCOTLAND.

ABERDEEN	Aberdeen	14	—
	Peterhead	15	—
AYR	Ayr	12	—
DUMFRIES	Dumfries	13	—
EDINBURGH	Edinburgh	23	—
FIFE	Kirkcaldy	1	—
FORFAR	Forfar Police Cells	1	—
	Dundee	13	—
	Montrose	1	—
INVERNESS	Inverness	4	—
LANARK	Glasgow	2	2
	Barlinnie	113	—
ORKNEY AND SHETLAND ISLANDS.	Lerwick	1	—
PERTH	Perth	7	—
RENFREW	Greenock	21	—
	Unknown	2	—
	Total	243	2
	Grand Total	842	20

APPENDIX No. VIII. (B.)

REFORMATORY SCHOOLS

RETURN showing number who left each School on Licence or Discharge during the three years 1904, 1905, and 1906, with the number of them who were re-convicted during 1907, and the percentage.

ENGLAND.

Reformatory School.	Number Licensed or Discharged.*	Re-convicted during 1907.	Percentage.
Bedford	58	9	15·5
Bradwall	64	2	3·1
Devon (Boys)	40	4	10·0
Devon (Girls)	40	—	—
Sunderland (Girls)	39	—	—
"Cornwall"	285	20	7·0
St. John's (late Boleyn Castle) (Roman Catholic).	166	7	4·2
Glamorgan	31	2	6·5
Hardwicke	47	4	8·5
Kingswood	106	7	6·6
Arno's Court (Roman Catholic, Girls).	79	1	1·3
Red Lodge (Girls)	29	—	—
Hants	65	3	4·6
Herts	84	4	4·8
"Akbar"	220	11	5·0
Liverpool Farm	150	4	2·7
Liverpool (Girls)	70	3	4·3
Farnworth (late "Clarence," Roman Catholic).	113	2	1·8
Fylde Farm (late Manchester and Salford).	88	7	8·0
Birkdale Farm (Roman Catholic)	159	7	4·4
Toxteth Park (Girls)	55	1	1·8
Lancashire (Roman Catholic, Girls).	50	2	4·0
Monmouth	20	1	5·0
Northampton	58	1	1·7
North Eastern	151	13	8·6
Kerrison	91	5	5·5
Ipswich (Girls)	37	1	2·7
Redhill	239	7	2·9
Saltley	94	3	3·2
Warwick (Boys)	63	3	4·8
Wilts	84	2	2·4
Stoke Farm	68	4	5·9
Calder Farm	94	5	5·3
Castle Howard	70	3	4·3
Leeds	136	17	12·5
Market Weighton (Roman Catholic).	157	13	8·3
TOTAL	3,400	178	5·2

* Excluding those who have since died.

SCOTLAND.

Reformatory School.	Number Licensed or Discharged.*	Re-convicted during 1907.	Percentage.
Dalry (Girls)	32	—	—
Wellington Farm	83	5	6·0
Rossie	67	2	3·0
East Chapelton (Girls)... ...	38	—	—
Parkhead (Roman Catholic) ...	172	22	12·8
Kibble	101	14	13·9
Stranraer	83	3	3·6
TOTAL	576	46	8·0

ABSTRACT.

Reformatory Schools.	Number Licensed or Discharged.*	Re-convicted during 1907.	Percentage.
ENGLAND—			
Males, Protestant	2,406	141	5·9
Males, Roman Catholic ...	595	29	4·9
TOTAL	3,001	170	5·7
Females, Protestant... ...	270	5	1·9
Females, Roman Catholic ...	129	3	2·3
TOTAL	399	8	2·0
SCOTLAND—			
Males, Protestant	334	24	7·2
Males, Roman Catholic ...	172	22	12·8
TOTAL	506	46	9·1
Females, Protestant... ...	70	—	—
Females, Roman Catholic ...	—	—	—
TOTAL	70	—	—

* Excluding those who have since died.

APPENDIX No. IX. (A.)

Payments from Parents.

REFORMATORY SCHOOLS.

A List of the Places from which Payments have been received on account of the Youthful Offenders under Detention in Reformatory and Industrial Schools, during the Year ending December 31, 1907, and the Amount collected at each such Place.

(A) On account of Youthful Offenders under Detention in Reformatory Schools.

	£ s. d.		£ s. d.		£ s. d.
Abergavenny ..	16 14 6	Birkenhead, County.	6 17 6	Burton-on-Trent..	24 11 0
Abertillery	1 6 0	Birmingham ..	124 4 0	Bury	10 9 6
Accrington	20 10 0	Bishop Auckland..	29 0 6	Buxton	2 12 0
Acle	2 12 0	Blackburn, Borough	4 15 6		
Aldershot	2 13 0	Blackburn, County	3 11 0		
Alford	0 4 0	Blackpool	15 12 0	Camborne	2 12 0
Alfreton	8 16 0	Blaenau Festiniog	2 12 0	Cambridge, Borough.	0 5 0
Alnwick	1 7 0	Blyth	3 3 0	Cambridge, County	6 18 0
Alton	6 19 0	Bodmin	2 6 0	Canterbury, Borough.	3 10 0
Altrincham	31 0 0	Bolton, Borough ..	57 13 10	Canterbury, County.	2 12 0
Arundel	5 17 0	Bolton, County ..	12 5 0	Cardiff, Borough ..	89 8 6
Ashbourne	2 15 6	Bootle	60 13 0	Cardiff, County ..	32 13 6
Ashford	6 10 0	Boston	0 0 6	Carlisle, Borough..	1 12 6
Ashton-under-Lyne	5 3 6	Bottisham	2 13 0	Carnarvon	16 7 11
Aston Manor ..	25 16 6	Bourne	1 6 0	Castle Eden ..	4 19 3
Aylesbury	6 10 0	Bournemouth ..	12 5 6	Chatham	32 6 0
		Bradford, Borough	45 15 6	Chelmsford ..	2 11 0
		Bradford, County	9 10 0	Cheltenham ..	16 13 0
Bangor	0 4 6	Braintree	2 12 0	Chertsey	6 17 0
Barnsley, Borough	29 8 6	Brentwood ..	10 12 6	Chester	17 16 6
Barnsley, County ..	4 17 0	Bridgend	19 7 0	Chesterfield, Borough.	7 19 6
Barnstaple, County	8 9 0	Bridgwater, County.	0 9 0	Chesterfield, County.	8 7 0
Barrow-in-Furness	22 11 6	Bridlington ..	3 13 0	Chichester	1 14 6
Barton-on-Humber	1 6 7	Brierley Hill ..	5 15 0	Chippenham ..	3 5 0
Bath	11 16 6	Brighton	30 3 0	Chipping Campden	2 12 0
Beaminster	0 2 0	Bristol	163 2 9	Chudleigh	3 12 0
Bedford, Borough ..	13 12 6	Bromsgrove ..	9 3 0	Church	8 10 6
Belper..	3 12 0	Brynmawr ..	3 4 6	Cirencester.. ..	2 12 0
Bexhill	13 6 0	Buckingham ..	0 18 0	Clitheroe	7 4 0
Bilston	1 11 0	Burnley, Borough	15 2 0	Colchester, Borough.	26 6 9
Birkenhead, Borough.	127 14 0	Burslem	25 0 0	Coleford	19 10 0

APPENDIX No. IX. (A.)

Payments from Parents (Reformatories)—*continued.*

	£	s.	d.
Consett	11	12	0
Coventry	6	1	6
Cranbrook	0	8	0
Crediton	1	19	0
Crewe..	5	0	6
Darlington	9	19	6
Dartford	4	1	0
Daventry	7	3	6
Denbigh	10	8	0
Derby, Borough ..	10	6	0
Derby, County ..	2	8	6
Devizes	2	12	0
Devonport	4	2	0
Dewsbury, Borough	1	16	0
Dewsbury, County	63	3	6
Docking	1	15	9
Doncaster, Borough	11	2	0
Doncaster, County	14	15	9
Dorchester	3	5	0
Dorking	7	16	0
Dover	0	12	0
Downham Market	0	12	0
Dudley	5	16	0
Dukinfield	3	18	0
Dunster	0	5	6
Durham, Borough..	7	8	0
Durham, County ..	1	9	0
Dursley	5	16	3
Eastbourne	21	6	6
East Retford ..	2	12	0
Epping	3	18	0
Epworth	1	12	3
Evesham	1	6	0
Exeter, Borough ..	32	6	6
Exeter, County ..	3	2	3
Falmouth	5	15	0
Fareham	2	0	6
Faringdon	4	10	0
Farnham	1	6	0
Fenny Stratford ..	1	6	0
Flax Bourton ..	1	19	0
Folkestone	8	10	0
Frome	4	2	0
Gainsborough ..	19	3	6
Gateshead, Borough.	105	9	6
Gateshead, County	61	12	0
Glastonbury ..	10	18	0
Glossop	1	0	0
Gloucester	15	10	0
Godalming ..	7	16	0
Goole	17	10	0
Gosforth	12	15	6
Gosport	10	5	0
Grantham, Borough.	6	13	6
Gravesend	2	18	0
Grays	17	15	6
Great Torrington..	4	15	6
Grimsby, Borough	31	19	9
Grimsby, County..	9	4	6
Guildford, Borough	2	4	0
Guildford, County	5	6	0
Guisborough ..	5	4	0
Hailsham	4	4	0
Halifax, Borough	13	16	0
Halifax, County ..	7	14	6
Handsworth ..	46	5	0
Hanley	21	10	6
Hartlepool	1	17	0
Hastings	21	2	6
Haverfordwest ..	2	12	0
Haywards Heath	11	8	6
Hemel Hempstead	0	5	0
Henley-on-Thames	0	2	6
Hereford	3	15	0
Hexham	3	0	0
High Wycombe, Borough.	0	4	0
Hinckley	1	2	0
Hitchin	3	2	6
Honiton	11	16	0
Horncastle	0	12	9
Horsham	4	5	0
Houghton-le-Spring	14	11	7
Hove	2	7	6
Huddersfield, Borough.	12	17	6
Hull	120	13	9
Hurst	10	9	6
Hyde	3	18	0
Hythe	5	4	0
Ilkeston	7	17	6
Ilminster	7	10	0
Ipswich, Borough	28	5	6
Ipswich, County ..	1	6	0
Jarrow-on-Tyne ..	61	8	6
Keighley	11	9	6
Kendal, Borough..	2	7	0
Kettering	24	3	6
Kidderminster ..	8	10	0
King's Heath ..	11	3	6
Kirkham	5	11	0
Knaresborough ..	5	4	0

APPENDIX No. IX. (A.)

Payments from Parents (Reformatories)—*continued.*

	£ s. d.		£ s. d.		£ s. d.
Lancaster	3 15 0	Nantwich	2 14 6	Pontypridd	79 4 6
Leamington	24 17 6	Neath, Borough ..	31 17 6	Poole	10 18 0
Leeds, Borough ..	46 6 3	Neath, County ..	13 19 6	Portland	1 19 0
Leek	2 10 6	Newbury	1 6 0	Portsmouth ..	5 7 6
Leicester, Borough	86 14 6	Newcastle-on-Tyne.	142 7 6	Prescot	3 12 0
Leicester, County ..	5 4 0	Newcastle-under-Lyme.	25 1 0	Preston	18 4 0
Leigh	6 1 0	Newport, Isle of Wight.	16 8 0		
Lewes	1 17 6	Newport, Monmouth.	11 8 0		
Lichfield	13 14 6	Northallerton ..	6 10 0	Ramsgate	0 8 0
Lincoln, Borough ..	12 11 6	Northampton, Borough.	23 18 6	Reading, Borough	38 13 0
Liscard	35 16 6	Northampton, County.	1 3 0	Reading, County ..	2 9 6
Liskeard	4 17 0	Northleach ..	1 19 0	Redditch	6 16 6
Liverpool	751 18 6	North Ormesby ..	24 17 0	Reedley	2 5 0
Llandilo	2 0 0	North Walsham ..	0 5 0	Reigate	2 12 0
Llanelly	12 3 6	Northwich	1 9 0	Rochdale, Borough	3 4 0
London, County ..	1,178 18 0	Norwich, Borough	11 2 6	Rochdale, County	7 3 0
Longton	12 6 6	Nottingham, Borough.	24 16 0	Rochester	6 18 0
Loughborough ..	0 10 0	Nottingham, County.	0 15 0	Rotherham, Borough.	2 8 0
Lowestoft	15 5 6	Nuneaton	13 2 3	Rotherham, County.	3 0 0
Luton, Borough ..	4 17 0			Rugby	3 2 0
Luton, County ..	3 18 0	Oakham	0 14 0		
Lutterworth ..	2 12 0	Oldbury	10 8 0		
Lyndhurst	2 8 0	Oldham	12 3 6	St. Albans, Borough	1 8 6
		Old Trafford ..	25 12 6	St. Albans, County	2 12 0
Macclesfield, Borough.	1 9 0	Ormskirk	6 1 0	St. Helens	13 14 0
Macclesfield, County.	0 8 0	Oswestry .. .	0 16 0	St. Neots	0 15 6
Maidenhead ..	4 11 0	Otley	3 19 0	Salford	81 0 0
Malton	0 16 4	Oxford, Borough ..	9 9 0	Salisbury, Borough	11 19 6
Malvern	3 0 0	Oxford, County ..	2 12 0	Salisbury, County	2 9 0
Manchester	367 12 9			Sandwich	7 12 0
Mansfield	20 14 0			Scarborough ..	54 6 0
Margate	16 1 0	Patcham	3 1 6	Seaforth	15 7 0
Market Harboro' ..	10 4 6	Pembroke Dock ..	1 2 6	Sheffield, Borough	152 10 6
Melton Mowbray ..	0 19 6	Peterborough City	0 6 0	Sheffield, County ..	2 12 0
Merthyr Tydvil ..	55 7 9	Peterborough, County.	2 12 0	Sittingbourne ..	11 3 0
Middlesbrough ..	103 10 9	Plymouth	5 15 6	Skerton	4 16 6
Mildenhall	2 12 0	Pontefract .. .	31 13 0	Skipton	19 0 0
Monmouth	6 17 6	Pontymister ..	10 12 0	Sleaford	0 17 0
Morpeth	1 13 0	Pontypool	26 18 0	Slough	5 12 6

APPENDIX No. IX. (A.)

Payments from Parents (Reformatories)—*continued.*

	£ s. d.		£ s. d.		£ s. d.
Smethwick	15 11 6	Totnes	2 10 0	Windsor, Borough	11 10 0
Solihull	0 10 0	Tredegar	18 14 6	Windsor, County ..	0 7 6
Somerton	0 16 3	Truro, County ..	3 18 0	Wisbech	2 4 0
Southampton ..	74 15 1	Tunbridge Wells ..	2 15 3	Witham	2 15 0
Southend-on-Sea	12 1 0	Tunstall	9 9 0	Wiveliscombe ..	2 9 0
Southminster ..	4 4 0	Tynemouth ..	17 1 6	Wokingham ..	9 16 0
Southport	1 9 0			Wolverhampton ..	12 14 0
South Shields ..	57 2 0	Uckfield	2 12 0	Woodbridge ..	4 8 0
Spalding	3 18 0	Ulverston	2 8 0	Woolston	11 10 6
Sparkhill	9 18 6			Worcester, Borough	3 1 0
Spilsby	3 18 0			Worthing	1 1 0
Stafford	19 10 0	Wakefield, Borough	6 0 0	Wrexham	2 17 0
Stalybridge	3 10 0	Wakefield, County	16 2 0	Wymondham ..	0 8 0
Stamford	0 12 6	Wallingford ..	2 12 0		
Staple Hill	3 8 0	Walsall	36 13 6		
Steyning	2 5 0	Wantage	0 10 3	Yarmouth	22 14 3
Stockport, Borough	9 13 6	Ware	2 12 0	York, City	31 9 0
Stockton-on-Tees ..	27 17 0	Wareham	0 13 0	Total (England) £	7,578 0 7
Stoke-on-Trent ..	17 17 6	Warminster ..	3 13 6		
Stone	5 12 0	Warrington ..	6 8 6		
Stonehouse	1 11 6	Warwick	5 13 3		
Stourbridge	11 1 0	Watford	24 7 6	SCOTLAND	
Stourport	5 2 0	Wednesbury ..	21 16 6	Aberdeen	60 4 3
Stowmarket ..	1 16 0	Wellingborough ..	8 15 0	Cupar	7 8
Stratford-on-Avon	3 18 0	Wellington	1 10 0	Dumfries, County	3 15 5
Stroud	10 1 0	Welton	1 16 0	Dundee	17 10 0
Sunderland	252 17 0	West Bromwich ..	18 17 6	Edinburgh	83 4 0
Swansea	14 12 0	West Hartlepool ..	18 0 0	Falkirk	7 5 6
Swindon	56 13 6	Weston, Bath ..	13 11 6	Glasgow	287 10 5
		Weston-super-Mare.	3 18 6	Hawick	1 18 0
		Weymouth	5 2 6	Kirkcaldy	2 4 6
Taunton	14 12 6	Whitehaven ..	0 18 0	Motherwell, Borough.	3 5 0
Tavistock	2 6 0	Whittlesey	1 17 0	Motherwell, County	4 11 6
Temple Cloud ..	1 8 6	Widnes	3 12 6	Perth, City ..	5 4 0
Tettenhall	0 6 0	Wigan, County ..	8 15 6	Stirling, Borough ..	2 16 0
Thorpe	3 18 6	Wimborne	1 19 0	Total (Scotland) £	486 16 1
Tonbridge	1 4 0	Wincanton	6 17 0		
Torquay	8 19 0	Winchester, Borough.	2 12 0	Grand Total £	8,064 16 8

APPENDIX No. IX. (B.)

PAYMENTS FROM PARENTS.

INDUSTRIAL SCHOOLS.

(B.)—On account of Children under Detention in Certified Industrial Schools.

	£	s.	d.
Abergavenny ..	8	7	0
Abertillery	46	12	0
Accrington	9	10	0
Acle	5	4	0
Aldershot	10	11	0
Alfreton	5	4	0
Alton	3	6	0
Altrincham	43	5	0
Ashbourne	6	12	0
Ashford	10	17	6
Ashton-under-Lyne	3	17	0
Aston Manor ..	10	12	6
Bacup	4	1	0
Bakewell	3	18	0
Banbury, Borough ..	1	9	0
Bangor	11	10	0
Barnard Castle ..	5	4	0
Barnsley, Borough	23	6	0
Barnsley, County ..	10	6	0
Barnstaple, Borough	7	6	6
Barnstaple, County	6	8	6
Barrow-in-Furness	34	5	0
Bath	41	10	6
Beaminster	6	12	0
Beccles	3	17	9
Bedford, Borough ..	3	8	10
Belper	1	19	10
Berwick-on-Tweed	10	19	0
Bexhill	2	13	0
Bilston	15	13	6
Birkenhead, Borough.	41	19	0
Birkenhead, County	2	15	6
Birmingham ..	278	15	0
Bishop Auckland ..	16	14	0
Bishop Stortford ..	6	10	0
Blackburn, Borough.	15	5	0
Blackburn, County	9	0	0
Blackpool	19	17	0
Blaenau Festiniog	10	6	0
Blandford	0	9	9
Blyth	19	7	6
Bodmin	10	7	0
Bolton, Borough ..	113	10	6
Bolton, County ..	22	6	6
Bootle Borough ..	58	13	6
Bournemouth ..	14	11	2
Bradford, Borough	44	17	0
Bradford, County	7	18	0
Braintree	6	4	0
Brentwood	9	9	2
Bridgend	15	0	6
Bridgnorth	2	12	0
Bridgwater ..	8	8	0
Bridlington	15	19	0
Brierley Hill ..	7	19	6
Brighton	39	1	6
Bristol	181	1	3
Bromsgrove ..	1	6	0
Brynmawr	3	3	0
Burnley, Borough	41	3	6
Burslem	13	10	6
Burton-on-Trent ..	48	4	6
Bury	52	12	6
Buxton	7	16	0
Camborne	6	13	6
Cambridge, Borough.	18	10	0
Canterbury, Borough.	6	2	6
Canterbury, County.	15	9	0
Cardiff, Borough ..	173	17	6
Cardiff, County ..	46	16	0
Carlisle, Borough ..	17	2	0
Carnarvon	11	8	6
Castle Eden ..	2	11	6
Chatham	116	9	0
Chelmsford ..	26	16	0
Cheltenham ..	6	19	0
Chertsey	15	14	0
Chester Borough ..	42	2	6
Chesterfield, Borough.	11	15	4
Chesterfield, County.	28	18	6
Chippenham ..	25	0	0
Chiswick	6	2	6
Chorley	0	2	6
Chudleigh	1	10	6
Church	11	19	6
Cockermouth ..	36	14	6
Colchester, Borough.	2	5	0
Colchester, County.	0	14	0
Coleford	22	12	0
Consett	45	12	6
Conway	11	3	6
Coventry	43	3	0
Crediton	9	6	0
Crewe	42	3	6
Darlington	45	17	0
Dartford	7	3	0
Derby, Borough ..	112	18	6
Derby, County ..	11	12	6

APPENDIX No. IX. (B.)

Payments from Parents (Industrial Schools)—*continued.*

	£	s.	d.
Devizes	0	9	0
Devonport	151	18	0
Dewsbury, Borough	0	2	0
Dewsbury, County	14	10	0
Doncaster, Borough	8	12	6
Doncaster, County	3	18	0
Dorchester	16	4	0
Dorking	3	10	6
Dover	16	16	0
Dudley	9	0	0
Dukinfield	2	11	0
Dunster	5	19	0
Durham, Borough..	28	3	0
Durham, County ..	36	0	6
Eastbourne ..	14	2	6
East Harling ..	10	7	0
East Retford ..	1	14	0
Epping	6	10	0
Evesham	0	4	0
Exeter, Borough ..	60	16	6
Exeter, County ..	4	11	0
Falmouth	1	6	0
Fareham	3	1	0
Faversham	0	19	0
Flax Bourton ..	2	12	0
Folkestone	8	17	0
Gainsborough ..	2	5	6
Gateshead, Borough	225	13	3
Gateshead, County	47	7	6
Glastonbury ..	15	3	8
Glossop	2	0	0
Gloucester	5	13	0
Godalming	5	4	0
Goole	14	11	6
Gosforth	52	3	6
Gosport	4	17	0
Gravesend	44	12	0
Grays	18	17	6
Great Torrington..	2	12	0
Grimsby, Borough	57	1	6
Grimsby, County..	10	15	6
Guisborough ..	8	16	0
Hailsham	0	5	0
Halifax, Borough..	9	6	0
Halifax, County ..	13	1	0
Handsworth ..	37	14	6
Hanley	30	16	6
Hartlepool	3	2	0
Hastings	16	11	0
Haverfordwest ..	7	17	0
Haywards Heath	0	15	3
Hemel Hempstead	3	15	0
Henley	0	5	6
Hereford, Borough	4	19	6
Hereford, County	1	6	0
Hertford	1	10	6
Hexham	5	2	6
Hitchin	6	12	9
Holt	2	12	0
Holyhead	3	17	6
Holywell	2	3	0
Horsham	0	16	0
Houghton-le-Spring.	17	12	0
Hove	12	12	6
Huddersfield, Borough.	14	16	0
Huddersfield, County.	1	3	0
Hull	229	1	0
Hurst	12	14	4
Hyde	31	15	6
Hythe	1	2	0
Ilkeston	13	13	0
Ilminster	6	4	0
Ipswich, Borough	38	14	6
Ipswich, County ..	2	12	0
Jarrow-on-Tyne ..	60		0
Keighley	26	3	6
Kendal, Borough..	0	18	0
Kettering	8	15	0
Kidderminster ..	3	8	6
King's Heath ..	6	11	0
King's Lynn ..	3	18	0
Kirkham	9	11	0
Knaresborough ..	12	18	8
Lancaster	12	16	0
Launceston.. ..	4	2	0
Leamington ..	5	0	0
Ledbury	0	6	6
Leeds, Borough ..	155	17	0
Leeds, County ..	2	16	0
Leek	5	12	0
Leicester, Borough	148	3	6
Leicester, County	2	9	0
Leigh..	33	4	6
Lewes	6	4	6
Lichfield	26	16	0
Lincoln, Borough..	18	15	6
Liscard	22	15	0
Liskeard	1	6	6
Liverpool	1,697	11	3
Llandyssil	1	16	0
Llanelly	12	5	6
Loddon	4	11	6
London	4,700	12	5
Longford	7	11	0
Longton	46	7	6
Loughborough ..	4	19	6
Louth, Borough ..	0	19	6
Lowestoft	19	9	0
Ludlow	0	15	9
Luton, Borough ..	5	3	0
Luton, County ..	1	18	0
Lyndhurst	2	19	0

APPENDIX No. IX. (B.)

Payments from Parents (Industrial Schools)—*continued.*

	£	s.	d.
Macclesfield, Borough.	11	18	6
Macclesfield, County.	11	7	0
Maidenhead ..	1	14	0
Maidstone, Borough	6	18	0
Malton	0	4	0
Malvern	11	0	0
Manchester ..	380	18	0
Mansfield	3	9	0
Margate	12	4	6
Matlock Bridge ..	2	19	0
Melton Mowbray ..	2	7	0
Menai Bridge ..	5	12	0
Merthyr Tydvil ..	129	8	3
Middlesborough ..	217	19	6
Middlewich ..	6	17	0
Mold	10	14	6
Morpeth	6	3	0
Nantwich	17	18	0
Neath, Borough ..	6	17	0
Neath, County ..	1	6	0
Newark, Borough ..	6	9	0
Newark, County ..	14	7	6
Newbury	4	12	0
Newcastle-on-Tyne	505	17	9
Newcastle-under-Lyme.	16	14	6
Newport (I.W.) ..	3	1	0
Newport, Mon. ..	17	14	0
Newtown	3	15	0
Normancross ..	2	18	6
Northallerton ..	3	18	0
Northampton, Borough.	17	15	0
Northampton, County.	2	12	0
North Ormesby ..	30	6	0
Northwich	7	17	6
Norwich, Borough	34	14	9
Norwich, County ..	5	4	0
Nottingham, Borough.	116	10	0
Nottingham, County.	15	0	6
Nuneaton	19	5	3
Oakmere	3	18	0
Oldham	61	6	6
Old Trafford ..	68	1	9
Ormskirk	5	7	0
Otley	4	3	0
Oxford, Borough ..	8	14	6
Oxted	0	7	0
Pembroke Dock ..	12	16	9
Penrith	6	5	0
Penzance	5	4	0
Peterborough, City	3	15	0
Petersfield	3	18	0
Plymouth	58	5	6
Pontefract	36	13	0
Pontymister ..	11	0	0
Pontypool	3	2	6
Pontypridd ..	80	8	0
Poole	31	14	0
Portland	9	13	9
Portsmouth ..	41	14	0
Prescot	6	11	0
Preston	41	14	6
Pwllheli	0	4	0
Ramsgate	9	1	6
Rawtenstall ..	2	11	6
Reading, Borough	45	15	6
Redditch	6	1	6
Reedley	3	6	6
Reigate	4	10	6
Ringwood	1	6	0
Rochdale, Borough	39	18	0
Rochdale, County	9	8	0
Rochester	14	18	6
Romford	25	4	0
Romsey	2	12	0
Ross	0	15	0
Rotherham, Borough.	59	8	6
Rotherham, County.	10	15	0
Rugby	4	16	6
Runcorn	1	7	5
Ryde	5	18	[illegible]
St. Albans, Borough	0	18	0
St. Helens	36	15	6
Saffron Walden ..	3	8	0
Salford	166	8	6
Salisbury, Borough	2	12	0
Sandwich	2	16	0
Scarborough ..	47	12	6
Scunthorpe ..	22	8	0
Seaforth	28	13	0
Selby	2	12	0
Sevenoaks .. .	2	12	0
Sheffield, Borough	275	0	0
Sheffield, County ..	2	5	0
Sherborne	1	19	0
Shrewsbury, Borough.	4	0	0
Sittingbourne ..	13	7	0
Skipton	6	5	6
Skirbeck Quarter	6	10	0
Slough	2	8	9
Smethwick ..	9	16	6
Solihull	5	4	0
Southampton ..	56	5	0
Southend	13	5	6
Southminster ..	2	8	0
South Molton ..	1	8	6
Southport	26	1	6
South Shields ..	251	3	1
Spalding	8	19	6
Sparkhill	6	3	6
Stafford	6	4	0
Stalybridge ..	11	11	0
Stanground ..	0	19	6
Staple Hill	9	7	0
Steyning	3	8	0
Stockport, Borough	44	9	6
Stockport, County	1	15	6

APPENDIX No. IX. (B.)

Payments from Parents (Industrial Schools)—*continued.*

	£	s.	d.
Stockton-on-Tees ..	54	12	6
Stoke-on-Trent ..	12	7	6
Stone	8	4	6
Stonehouse	13	14	6
Stourbridge	5	10	6
Stourport	2	15	0
Stratford	1	1	0
Stroud	12	10	0
Sunderland	353	13	3
Swansea	118	5	6
Swindon	22	12	6
Tadcaster	25	17	6
Taunton	13	11	0
Temple Cloud ..	2	4	0
Terrington	4	3	0
Tettenhall	0	10	6
Thornaby	2	18	6
Tiverton	0	5	0
Todmorden	3	9	0
Tonbridge	0	3	0
Torquay	13	15	6
Totnes	1	5	0
Tredegar	22	12	0
Trowbridge	1	16	0
Truro, Borough ..	11	2	6
Truro, County ..	7	3	0
Tunbridge Wells ..	1	2	0
Tunstall	11	12	0
Tynemouth	82	9	6
Ulverston	22	11	0
Wakefield, Borough	13	18	6
Wakefield, County	10	9	6
Walsall	50	11	6
Warrington	19	8	6
Warwick	13	6	6
Watford	7	9	0
Wednesbury ..	31	6	0
Wellingborough ..	10	8	6
Wellington	1	6	3
West Bromwich ..	31	8	6
West Hartlepool ..	45	5	0
West Malling ..	2	5	0
Weston	18	9	0
Weston-super-Mare	20	8	0
Weymouth	20	5	0
Whitby	0	5	0
Whitchurch ..	1	8	0
Whitehaven ..	60	9	6
Widnes	14	11	6
Wigan, Borough ..	26	1	0
Wigan, County ..	15	1	0
Wigton	4	10	0
Wincanton	6	10	0
Winchester, Borough.	1	15	0
Winchester, County	4	6	5
Windsor, Borough	8	12	0
Windsor, County ..	6	7	0
Wisbech	2	11	0
Witham	2	12	0
Wokingham ..	9	5	6
Wolverhampton ..	6	13	0
Woodbridge ..	8	4	0
Woolston	6	16	6
Worcester, Borough.	40	10	0
Workington ..	119	18	6
Worksop	7	10	0
Worthing	1	2	0
Wrexham	25	2	0
Wymondham ..	2	12	0
Yarmouth	48	7	0
Yeovil	5	7	6
York	51	11	3
Total .. £	16,172	2	7

SCOTLAND.

Aberdeen	125	8	4
Crieff	11	12	0
Cupar	29	5	0
Dumfries, Burgh ..	0	1	0
Dumfries, County	13	0	0
Dundee	323	15	3
Edinburgh	228	15	6
Falkirk	29	15	0
Glasgow	1,878	18	7
Hawick	0	14	6
Kirkcaldy	26	19	6
Montrose	5	6	0
Motherwell, Burgh	10	11	6
Motherwell, County.	24	7	0
Perth, City	71	18	0
Perth, County ..	11	4	0
Perth, Fechney ..	67	7	0
Stirling, Burgh ..	1	9	6
Stirling, County ..	11	14	0
Total .. £	2,872	1	8

PAYMENTS FROM PARISH COUNCILS.

Aberdeen	219	13	9
Crieff	14	12	6
Cupar	13	0	0
Dumfries, County	9	2	0
Dundee	129	18	3
Edinburgh	602	17	9
Falkirk	64	11	0
Glasgow	1,415	15	1
Kirkcaldy	6	10	0
Montrose	0	10	0
Motherwell, Burgh	7	2	6
Perth, City	87	0	0
Perth, County ..	7	1	0
Perth, Fechney ..	30	0	0
Stirling, Burgh ..	3	12	6
Total .. £	2,617	6	4
Grand Total £	21,661	10	7

APPENDIX X.

Reformatory Schools.

Offences for which Youthful Offenders (England) and (Scotland) were committed to Reformatories in 1907.

Offence.	England.		Scotland.		Total.
	Boys.	Girls.	Boys.	Girls.	
Arson	2	2	—	1	5
Assault	2	1	1	—	4
Attempted carnal knowledge	3	—	—	—	3
Attempted house-breaking	4	—	2	—	6
Attempted theft	12	2	2	—	16
Begging	25	2	—	—	27
Being on enclosed premises with unlawful intent.	14	—	—	—	14
Burglary	3	—	—	—	3
Cruelty to animals	5	—	—	—	5
Disorderly in workhouse	—	1	—	—	1
Embezzlement	16	—	1	—	17
Felony	6	1	—	—	7
Forging	1	—	—	—	1
Fraud	—	—	1	1	2
Gambling	5	—	—	—	5
House or shop-breaking	76	3	14	1	94
Indecent assault	7	—	1	—	8
Industrial Schools :—1. Absconding from	8	1	2	—	11
2. Refusing to comply with rules.	1	1	—	—	2
Larceny	830	129	146	14	1,119
Loitering with unlawful intent	12	—	—	—	12
Malicious mischief	4	—	9	—	13
Maliciously wounding	2	—	—	—	2
Obtaining by false pretences	13	—	—	1	14
Pocket picking	—	—	1	—	1
Receiving stolen goods	5	1	—	—	6
Refusing to work in workhouse	—	1	—	—	1
Soliciting prostitution	—	1	—	—	1
Suspected person	1	—	—	—	1
Throwing stones	1	—	—	—	1
Trespassing	4	—	—	—	4
Unlawful possession	1	—	—	—	1
Vagrancy	29	—	—	—	29
Wandering	13	—	—	—	13
Wilful damage	4	—	—	—	4
Total	1,109	146	180	18	1,453

FORTY-SIXTH REPORT

OF THE

INSPECTOR

APPOINTED TO VISIT THE

REFORMATORY AND INDUSTRIAL SCHOOLS

OF

IRELAND.

CERTIFIED UNDER THE 21ST AND 22ND VIC., CAP. 103; 31ST AND 32ND VIC., CAP. 59, AND 31ST VIC., CAP. 25.

FOR THE YEAR ENDED 31ST DECEMBER, 1907.

Presented to both Houses of Parliament by Command of His Majesty.

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No. 15421.

Dublin Castle,

24th July, 1908.

Sir,

I have to acknowledge the receipt of your letter of the 23rd instant, forwarding, for submission to His Excellency the Lord Lieutenant, the Forty-sixth Report on Reformatory and Industrial Schools in Ireland for the year ended 31st December, 1907.

I am,

Sir,

Your obedient Servant,

(Signed), J. B. DOUGHERTY.

The Inspector

Reformatory and Industrial Schools,

Dublin Castle.

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FORTY-SIXTH REPORT

OF THE

INSPECTOR

OF

REFORMATORY AND INDUSTRIAL SCHOOLS IN IRELAND.

TO THE

RIGHT HON. AUGUSTINE BIRRELL, P.C., M.P., &c.,

CHIEF SECRETARY TO THE LORD LIEUTENANT OF IRELAND.

OFFICE OF INSPECTOR OF REFORMATORY
AND INDUSTRIAL SCHOOLS,
DUBLIN CASTLE,
23rd July, 1908.

SIR,

I have the honour to submit to you the Annual Report on the Reformatory and Industrial Schools in Ireland for the year ending 31st December, 1907.

The number of schools under inspection at the beginning of last year was—5 Reformatories and 68 Industrial Schools.

Every school was examined at least once during the year, and one or more surprise visits were made to most of the schools as well.

I have to record the closing of the Girls' School at Oughterard, County Galway, on the 31st December last. The children, who were then under order of detention in the school, were transferred to the three schools, Loughrea, Ballinasloe, and Clifden, which are situated in the same county, and in which there were large numbers of vacancies. On the same date the number, for which the Boys' School at Killybegs was certified, was increased from 100 to 144.

REFORMATORIES.

At the end of 1907 there were 5 Reformatory Schools in Ireland.

2 for Roman Catholic Boys.
2 „ „ Girls
1 for Protestant Boys.

The number of Roman Catholic and Protestant juveniles under order of detention on 31st December, 1907, was:—

—	Roman Catholic.	Protestant.
Boys, ...	435	120
Girls, ...	38	—
Total, ...	473	120

The number of juveniles on the rolls of Reformatory Schools on the 31st December, 1906, and on the 31st December, 1907, is shown in the following summary:—

—	On 31st December, 1906.			On 31st December, 1907.		
	Males.	Females.	Total.	Males.	Females.	Total.
In School, ...	512	38	550	539	38	577
On Licence, ...	9	1	10	13	–	13
In Prison, ...	–	–	–	–	–	–
Absconded—sentence unexpired,	2	–	2	3	–	3
In School—sentence expired, .	–	–	–	–	–	–
Total, . . .	523	39	562	555	38	593

These numbers show an increase of 32 boys and a decrease of 1 girl as compared with those of the previous year.

Admissions.

The admissions to Reformatory Schools in 1907 were 156, viz., 141 boys and 15 girls, showing an increase of 14 boys and of 4 girls—a total increase of 18 as compared with 1906.

The following tabular statement gives the numbers admitted for the year 1907, and for each of the preceding ten years:—

Year.	Boys.	Girls.	Total.
1897, ...	157	15	172
1898, ...	120	16	136
1899, ...	102	20	122
1900, ...	171	14	185
1901, ...	121	12	133
1902, ...	102	16	118
1903, ...	118	6	124
1904, ...	119	10	129
1905, ...	164	7	171
1906, ...	127	11	138
1907, ...	141	15	156

The following table gives the number admitted in 1907 into Reformatory Schools from the several Cities and Counties where committals were made:—

Place of Committal.	Boys.	Girls.	Total.
Antrim County,	3	-	3
Belfast City,	28	1	29
Armagh County,	1		1
Clare County,	2	-	2
Cork County,	2	-	2
Cork City,	1	3	4
Donegal County,	3	-	3
Down County,	1	-	1
Dublin County,	7	-	7
Dublin City,	59	7	66
Galway County,	4	-	4
Kerry County,	2	1	3
King's County,	5	1	6
Limerick City,	2	1	3
Londonderry County,	4	-	4
Londonderry City,	2	-	2
Louth County,	2	-	2
Mayo County,	-	1	1
Meath County,	1	-	1
Monaghan County,	1	-	1
Roscommon County,	1	-	1
Tipperary North Riding,	1	-	1
Tipperary South Riding,	1	-	1
Waterford City,	3	-	3
Wexford,	3	-	3
Wicklow,	2	-	2
Total,	141	15	156

From the above summary it is seen that the two cities of Dublin and Belfast sent to Reformatories 95, or 60·89 per cent., of the total number committed.

The following tabular statement shows the offences for which juvenile offenders were committed to Reformatory Schools last year and the number committed for the several offences:—

Offences.	Boys.	Girls.	Total.
Larceny and Petty Theft,	82	9	91
" by Servant,	1	1	2
" from Person,	1	-	1
" in Dwelling-house,	2	-	2
Attempt to Steal,	5	-	5
Unlawful Possession of Goods,	11	1	12
Housebreaking and Shopbreaking, &c.,	9	1	10
Burglary,	2	-	2
Wilful Damage and Malicious Offences,	9	2	11
Assaults,	7	-	7
Vagrancy,	10	-	10
Other Offences,	2	1	3
Total,	141	15	156

State of Instruction on Admission.

Of the 141 boys admitted last year, 54 could neither read nor write, and 87 could read or read and write imperfectly.

Of the 15 girls admitted, 9 could neither read nor write, and 6 could read or read and write imperfectly.

Discharges.

The discharges from Reformatory Schools in 1907 amounted to 109 boys and 16 girls; total, 125.

They were distributed as follows :—

Mode of Discharge.	Boys.	Girls.	Total.
To employment or service,	30	9	39
Returned to friends,	35	4	39
Emigrated,	3	-	3
Sent to sea,	2	-	2
Enlisted,	33	-	33
Discharged on account of disease,	-	1	1
Died,	1	1	2
Discharged—being illegally committed,	5	1	6
Total,	109	16	125

The following statement represents the present circumstances of those discharged from Reformatory Schools last year (excluding discharges on account of disease and discharges where the committals were illegal.

School.	Number Discharged.	Number Doing Well.	Number Not Doing Well or Doubtful.	Number Unknown.
Malone,	22	21	1	-
Philipstown,	48	45	-	3
Glencree,	33	31	2	-
High Park,	4	4	-	-
Limerick,	9	9	-	-
Total,	116	110	3	3

The results of Reformatory Schools as regards character at the end of 1907 of those discharged during the years 1904, 1905, and 1906 were as follows :—

The total number discharged in those three years, omitting deaths, transfers, and illegal committals, was 418, viz., boys, 382, and girls, 36. Of these 2 had died, viz., 1 boy and 1 girl, leaving 381 boys and 35 girls to be reported upon.

Of the boys—

344 were doing well.
4 were doubtful.
10 had been re-convicted.
22 were unknown.
1 was re-committed to a Reformatory School.

Of the girls—

32 were doing well.
2 were doubtful.
1 had been re-convicted.

The following Table shows the Receipts for Reformatory Schools for the past two years:—

—	1906.	1907.	Increase or Decrease in 1907.	
			Increase.	Decrease.
	£	£	£	£
Received from Treasury, .	8,600	8,770	170	—
Do. Local Rates, .	3,883	4,132*	249	—
Do Other Sources, .	895	376	—	519
Estimated Profit, . . .	1,798	2,166	368	—
Total, . . .	15,176	15,444	268	—

* These figures were supplied by Managers of Reformatory Schools.

The following Table gives the amounts expended under the same headings for each of the two years ending 31st December, 1906 and 1907:—

—	1906.	1907.	Increase or Decrease in 1907.	
			Increase.	Decrease.
	£	£	£	£
Salaries of Officers, . .	2,020	2,075	55	-
Rations for do., . .	750	738	—	12
Food for Inmates, . .	5,260	5,511	251	—
Clothing for do., . .	1,606	1,712	106	—
Washing, Fuel, and Light, .	1,100	1,141	41	—
Repairs, Rates, and Taxes, .	617	712	95	—
Furniture and Sundries, .	526	566	40	—
Printing, &c., . . .	390	384	—	6
Travelling, . . .	201	199	—	2
Medical Expenses, . .	224	255	31	—
Sundries, Rewards, . .	418	452	34	—
Rent, ...	217	217	—	—
Interest, ...	210	196	—	14
Disposal, ...	496	380	—	116
Buildings, ...	677	397	—	280
Loss on Industrial Department,	—	—	—	—
Total, . .	14,712	14,935	223	—

The following Table shows the cost per head in each Reformatory School for the past two years:—

Reformatory Schools.	1906.	1907.
	£	£
Malone, Belfast,	19·9	16·5
St. Conleth's, Philipstown,	23	22·8
St. Kevin's, Glencree,	23·6	21·9
High Park, Dublin,	24·4	21·4
St. Joseph's, Limerick,	24·2	22·9

Health of Inmates.

It is gratifying to have again to record that the health of the inmates of Reformatory Schools continues to be good. One boy and one girl died last year while under order of detention in these Schools. The cause of death in each case was disease of lungs.

Literary Training.

The literary training continues to be very satisfactory in both the boys' and girls' schools. In spite of the neglected state in which most of these young people enter the schools, very few leave without having received a literary training which will enable them to improve their positions in after-life, if they are so desirous.

Industrial Training.

The industrial training in all the schools is satisfactory. Special attention is given to the subject of Domestic Science in St. Joseph's Reformatory School, Limerick, with the result that the girls trained in the school are easily disposed of and succeed in securing and retaining good places as domestic servants. In the three Reformatory Schools for boys the subjects of agriculture and horticulture receive special attention, and in the Malone and Philipstown Reformatories manual instruction is taught in a satisfactory manner.

INDUSTRIAL SCHOOLS.

There were 68 Industrial Schools in Ireland at the end of 1907.

They were distributed as follows :—

Boys, Roman Catholic, 19 ; Protestant, 2.
Girls, Roman Catholic, 43 ; Protestant, 3.
Mixed for boys and girls, Roman Catholic, 1.

As already stated, the Industrial School for girls at Oughterard was closed on 31st December, 1907, thus leaving 67 Industrial Schools in existence at the beginning of the current year,

The following Table gives the number under order of detention in Industrial Schools on the 31st December, 1906 and 1907.

—	On 31st December, 1906.			On 31st December, 1907.		
	Males.	Females.	Total.	Males.	Females.	Total.
In School (within number paid for under the Rules),	3,567	4,026	7,593	3,578	3,955	7,533
In School (in excess of the number paid for, or under 6 years of age),	184	260	444	161	291	452
On Licence,	170	146	316	156	138	294
Absconded—sentence unexpired,	3	1	4	2	1	3
Remaining in School—sentence expired,	3	12	15	6	7	13
Total,	3,927	4,445	8,372	3,903	4,392	8,295

The foregoing tabular statement shows that the number under order of detention at the end of 1907 was 77 less than at the close of the preceding year. The number of boys had decreased by 24 and the number of girls by 53.

The number of Industrial School children chargeable to the Capitation Grant on 31st December, 1907, was 7,533, or 60 less than at the end of the preceding year.

The following Table shows the number of Roman Catholics and Protestants under order of detention on 31st December, 1907 :—

—	Boys.			Girls.		
	Roman Catholics.	Protestants.	Total.	Roman Catholics.	Protestants.	Total.
In School (within number paid for under the Rules),	3,029	549	3,578	3,624	331	3,955
In School (in excess of the number paid for, or under 6 years of age),	148	13	161	257	34	291
On Licence,	127	29	156	122	16	138
Absconded—sentence unexpired.	2	–	2	–	1	1
Remaining in School—sentence expired,	4	2	6	5	2	7
Total,	3,310	593	3,903	4,008	384	4,392

From this Table it appears that 7,318 children were on the rolls of Roman Catholic schools, and 977 on the rolls of Protestant schools, at the close of last year.

Admissions.

The admissions to Industrial Schools in 1907, omitting transfers and re-committals, were—boys, 619 ; girls, 600 ; total, 1,219.

The number admitted last year is 91 below that for 1906. The number of boys decreased by 40 and the number of girls by 51.

The following Table gives the number of children admitted for the year 1907 and for each of the preceding ten years.

Year.	Boys.	Girls.	Total.
1897,	632	778	1,410
1898,	605	633	1,238
1899,	477	478	955
1900,	519	503	1,022
1901,	694	662	1,356
1902,	623	695	1,318
1903,	656	724	1,380
1904,	643	709	1,352
1905,	652	642	1,294
1906,	659	651	1,310
1907,	619	600	1,219

The following Table gives the number admitted in 1907 into Industrial Schools from each City and County :—

Cities and Counties,	Boys.	Girls.	Total.
Antrim,	9	6	15
Belfast City,	158	99	257
Armagh,	12	5	17
Cavan,	4	9	13
Clare,	9	14	23
Cork,	24	41	65
Cork City,	20	16	36
Donegal,	4	1	5
Down,	1	1	2
Dublin,	27	21	48
Dublin City,	150	96	246
Fermanagh,	1	–	1
Galway,	35	34	69
Kerry,	13	30	43
Kildare,	3	2	5
Kilkenny,	4	3	7
King's,	6	8	13
Leitrim,	1	6	7
Limerick,	7	13	20
Limerick City,	8	28	36
Londonderry,	4	3	7
Londonderry City,	6	1	7
Longford,	1	4	5
Louth,	12	11	23
Mayo,	9	16	25
Meath,	1	–	1
Monaghan,	4	4	8
Queen's,	2	3	5
Roscommon,	11	21	32
Sligo,	13	18	31
Tipperary North Riding,	10	13	23
Tipperary South Riding,	9	13	22
Tyrone,	8	5	13
Waterford,	5	5	10
Waterford City,	5	6	11
Westmeath,	2	7	9
Wexford,	8	28	36
Wicklow,	9	9	18
Total,	619	600	1,219

Return showing the causes for which the Children were committed who were admitted into the Industrial School during the year ending 31st December, 1907 :—

Grounds of Committal.	Males.	Females.	Total.
Found begging or receiving alms, whether doing so actually or under pretext of selling anything or offering anything for sale.	73	82	155
Being in any street or public place for the purpose of begging or receiving alms, whether actually doing so or under pretext of selling anything or offering anything for sale	7	17	24
Found wandering, and not having any home, . .	5	13	18
Found wandering, and not having any settled place of abode.	3	6	9
Found wandering, and not having proper guardianship,	288	287	575
Found wandering, and not having visible means of subsistence.	56	64	120
Found destitute, and being an orphan without any parent.	73	76	149
Found destitute, and having surviving parent who is undergoing penal servitude or imprisonment.	41	33	74
Frequenting the company of reputed thieves, . .	39	7	46
Being under 12 years of age and charged with an offence punishable by imprisonment.	24	1	25
Lodging, living, or residing in a house resided in or frequented by prostitutes, or frequenting the company of prostitutes.	7	11	18
Committed under the Prevention of Crimes Act, 1871, .	–	1	1
Committed for other causes, ...	3	2	5
Total, ...	619	600	1,219

State of Education on Admission.

Of the total number of boys admitted last year, 361 could neither read nor write, 229 could read or read and write imperfectly, and 29 could read and write well.

Of the total number of girls admitted, 371 could neither read nor write, 202 could read or read and write imperfectly, and 27 could read and write well.

Discharges.

The total number discharged from Industrial Schools (excluding transfers) during the year 1907 was 1,322; boys, 650; girls, 672.

The mode of discharge is given in the following summary :—

Mode of Discharge.	Boys.	Girls.	Total.
To employment or service, ...	390	419	809
Returned to Friends, ...	178	157	335
Emigrated, ...	18	13	31
Sent to Sea, ...	5	–	5
Enlisted, ...	1	–	1
Discharged on account of disease, . .	18	12	30
Died, ...	22	31	53
Committed to Reformatories, ...	–	1	1
Absconded, not recovered, ...	2	–	2
Discharged, being illegally committed, . . .	16	39	55
Total, ...	650	672	1,322

The results of Industrial Schools considered with reference to the numbers doing well, doubtful, convicted, and unknown of those discharged in 1904, 1905, and 1906, were as follows:—

The total number discharged in those three years, omitting deaths, transfers, committals to Reformatory Schools, and discharges in cases of illegal committals, was 3,598, viz.:—Boys, 1,718, and girls, 1,880. Of this number 89 had since died, viz., 42 boys and 47 girls. There were left 1,676 boys and 1,833 girls to be reported upon.

Of the 1,676 boys—

1,519 were doing well,
59 were doubtful,
7 had been convicted,
91 were unknown.

Of the 1,833 girls—

1,748 were doing well,
16 were doubtful,
69 were unknown.

The following Table shows the amounts received during the past two years:—

——	1906.	1907.	Increase or Decrease in 1907.	
			Increase.	Decrease.
	£	£	£	£
Received from Treasury, . .	98,870	98,689	—	181
Do. Local Rates, .	42,017	42,455*	438	—
Do. Other Sources, .	7,007	7,694	687	—
Estimated Profit, . . .	7,644	8,118	474	—
Total, . . .	155,538	156,956	1,418	—

* These figures were supplied by Managers of Industrial School.

The following Table gives the Expenditure during the past two years:—

——	1906.	1907.	Increase or Decrease in 1907.	
			Increase.	Decrease.
	£	£	£	£
Salaries for Officers, . . .	19,790	20,046	256	—
Rations for do., . . .	7,478	7,527	49	—
Food for Inmates, . . .	59,595	59,569	—	26
Clothing for do., . . .	19,581	19,666	85	—
Washing, Fuel, Light, . .	13,326	14,203	877	—
Repairs, Rates and Taxes, .	8,642	7,675	—	967
Furniture and Sundries, .	6,628	6,298	—	330
Printing, &c., ...	1,863	1,783	—	80
Travelling, ...	535	465	—	70
Medical Expenses, . . .	2,795	2,671	—	124
Sundries, Rewards, . . .	2,865	2,899	34	—
Rent, ...	3,435	3,547	112	—
Interest, ...	6,744	6,708	—	36
Disposal, ...	3,000	3,166	166	—
Buildings, ...	3,778	7,266	3,488	—
Loss on Industrial Department,	20	530	510	—
Total, . . .	159,075	163,019	3,944	—

RETURN of the amount contributed in 1907 out of the Local Rates by each City and County towards the maintenance of children in Reformatory and Industrial School:—

Cities and Counties.	Population.	Reformatory Schools.		Industrial Schools.	
		Amount contributed in 1907.	Number of children under detention on 31st December, 1907.	Amount contributed in 1907.	Number of children under detention on 31st December, 1907.
		£		£	
Antrim,	196,090	89	19	569	92
Belfast City,	349,180	826	133	9,287	1,529
Armagh,	125,392	23	3	372	75
Carlow,	37,748	5	–	140	18
Cavan,	97,541	26	7	338	72
Clare,	112,334	27	5	690	108
Cork,	328,489	75	10	2,935	585
Cork City,	76,122	236	34	799	243
Donegal,	173,722	20	5	289	44
Down,	205,889	78	10	298	42
Dublin,	157,568	82	18	1,671	337
Dublin City,	290,638	1,872	229	7,680	1,611
Fermanagh,	65,430	7	1	104	16
Galway,	192,549	63	12	2,569	510
Kerry,	165,726	12	5	1,080	317
Kildare,	63,566	22	3	615	89
Kilkenny,	79,159	8	1	643	111
King's,	60,187	53	10	576	102
Leitrim,	69,343	–	–	196	35
Limerick,	107,947	13	2	814	181
Limerick City,	38,151	129	13	521	238
Londonderry,	104,512	41	9	156	29
Londonderry City,	39,892	18	3	71	12
Longford,	46,672	4	–	270	46
Louth,	65,820	50	10	1,063	168
Mayo,	199,166	8	4	1,026	138
Meath,	67,497	4	1	79	13
Monaghan,	74,611	14	3	274	44
Queen's,	57,417	6	–	201	38
Roscommon,	101,791	13	2	869	177
Sligo,	84,083	9	1	1,045	183
Tipperary North Riding,	67,815	20	2	667	132
Tipperary South Riding,	92,417	56	8	600	196
Tyrone,	150,567	7	1	411	72
Waterford,	60,418	13	1	512	79
Waterford City,	26,769	40	8	700	114
Westmeath,	61,629	12	1	673	112
Wexford,	104,104	73	11	1,193	233
Wicklow,	60,824	46	8	497	124
Total,	4,458,775	4,100*	593	42,498*	8,295*

These figures were supplied by County and Borough Councils.

Parental Contributions.

The amount of parental money collected during the year 1907 is set forth in the following tabular statement:—

—	Reformatories.	Industrial Schools.	Total.
	£ s. d.	£ s. d.	£ s. d.
Dublin Metropolitan Police District.	223 7 0	160 10 7	383 17 7
Provinces, ...	249 5 9	1,063 10 6	1,312 16 3
Total, . . .	472 12 9	1,224 1 1	1,696 13 10

The total amount collected in 1906 was £1,708 17*s.* 2*d.*, of which sum £494 6*s.* 2*d.* was for Reformatory, and £1,214 11*s.*, for Industrial School cases.

There is a decrease of £12 3*s.* 4*d.* in the total amount as compared with the previous year. The Industrial School collection shows an increase of £9 10*s.* 1*d.* over that of last year, but the amount of the Reformatory collection is less by £21 13*s.* 5*d.*

Health.

The number of deaths last year shows a marked decrease as compared with the numbers for some years past. During the past year 53 of the children—22 boys and 31 girls—under order of detention in industrial schools died. In the boys' schools the number of deaths was 13 less, and in the girls' schools 4 less than in 1906. During the year 1907 the number of deaths due to lung disease was 29. In the previous year the number was 40.

As was the case in previous years, tuberculosis heads the list in the mortality return for last year. No doubt many of those children who were victims of tuberculosis had in them at the time of their committal the seeds of the disease, which developed later on. While we cannot at the present time expect to find the schools altogether free from this scourge, managers recognising its dangers should endeavour, by trying efficient preventive treatment, to arrest or stamp out the disease. The main factors that will assist them in this direction are good food, good clothing, and good housing.

There is still much to be desired in most of the boys' schools in the matter of good food. I do not mean to say that there is a deficiency in quantity. The fault lies in the selection and proper cooking of the food. Instances have come under my observation where good food spoiled in the preparation so far from doing any good did positive mischief.

More attention on the part of managers in choosing capable persons to superintend the selection, preparing, and cooking of the food will materially contribute to the better health and general well-being of the children under their care.

The question of clothing, more especially in winter, is one to which sufficient attention is not given. It is a fact that children too readily part with their heat, and accordingly in cold weather they are liable to suffer in health unless they are well clothed and supplied with sufficient heat-giving food.

Considering the fine structures provided in most of the schools for the accommodation of the children, it might be expected that there should be no cause for complaint as regards the housing of the inmates. A better system of heating and ventilation is, however, much needed in some of the institutions. In schools where I met with defects of this nature, I drew the attention of the managers to them, and hope to see the remedies I suggested soon carried out.

It is very desirable that the boys should get, in the course of their training, a general knowledge of the laws relating to food and hygiene. I am pleased to have to say that in the girls' schools much attention is devoted to these important subjects, and that the girls acquire a good sound knowledge of them before they leave school.

Literary Training.

During the past year the literary training of the children has made very satisfactory progress and continues to be highly efficient.

Reading is generally good, but the amount prepared, particularly in the lower standards, is too small in many cases. I have met with cases of children who seemed to be reading correctly and fluently, but on investigation I found that their books were not open at the right page, the lesson having been learned by rote, and of course the lesson had ceased to be a lesson in reading and had become a mere effort of memory. In the senior standards this error is avoided, as each standard has generally at least two readers, one of them, in girls' schools, being almost always on the subjects of domestic economy.

Dictation is generally fairly good in the senior standards, but not so good in the junior standards. Oral spelling in the junior standards is generally very good.

Writing is almost always very well taught, but care should be taken that the children are not allowed to scribble too carelessly on the "jotters" that are now taking the place of slates in most schools, otherwise the discarding of slates may do more harm than good.

Arithmetic is on the whole well taught, and is put to a practical use by the senior girls when making out the bill of fare for the day, and in writing out the cost of cheap meals or the economic spending of a workman's weekly wages.

Geography and grammar are fairly well taught, the local geography of each school being now usually given as the first lesson in this subject instead of the geography of the world, which was difficult for a young child to realise.

Industrial Training.

The industrial training in the girls' schools is of the highest order, and is well adapted for preparing the children for the positions they will take up in afterlife. The children are well taught, both in theory and practice, all the subjects embraced in the syllabus of Domestic Science, so that when they leave school they go out intelligent and capable workers, able to earn their own livelihood, and are sure to affect for good those with whom they may be associated.

In the boys' schools the different trades have been well taught as heretofore, and the subjects of manual instruction and agriculture are receiving careful attention. A larger number of boys are now being trained in these subjects than formerly.

To show the importance which I attach to the training of young girls in all the subjects embraced in the study of Domestic Science, and with a hope that a healthy rivalry will stimulate both the teachers to impart, and the children to acquire, the knowledge of the subjects best suited to the class of children in the schools, I have offered a prize to be competed for every three years.

The award will be made to the school which, for the three years preceding the competition, will be found to have the best record for general excellence in everything connected with the subject of Domestic Science.

By general excellence is meant (1) the possession of thoroughly equipped departments, simple but complete in every detail, for the practical training of the children in the courses prescribed in the syllabus of Domestic Science; (2), the presence of a capable and zealous acting manager who controls a good staff of teachers and inspires them and the children with a love for their work; who sees that practical efficiency is gained by intelligent training, and succeeds in creating an atmosphere conducive to acquiring an intelligent, practical, commonsense knowledge of the subjects taught, and who gives special attention to the training of backward and dull children and makes all feel as if they were living under good home influence.

At the end of each year the Inspector and Assistant Inspector will confer, for the purpose of determining the degree of merit shown by each school in that year, and will note the result of their inquiry. Six months preceding the award they will select the schools that stand out prominently for excellent work up to that period, and from those after careful scrutiny and examination, they will choose the successful school.

For the first award of the Challenge Shield for Domestic Science the rules which are to govern future competitions could

not be accurately observed. There were five schools in the final round of the examination, and to the four schools of this list who failed to gain the shield, Her Excellency the Countess of Aberdeen, who takes a deep interest in the training of the young girls in these schools graciously presented silver medals.

The presentation took place at the Viceregal Lodge, where a number of the children appeared to receive from Her Excellency's hands the shield and medals.

The following is the result of the competition :—

Challenge Shield for Domestic Science.

St. Martha's, Monaghan.

Silver Medals and Certificates of Merit.

Hampton House, Belfast.
St. Michael's, Wexford.
St. Vincent's, Limerick.
St. George's, Limerick.

Certificates of Merit (*arranged alphabetically*).

Benada Abbey, County Sligo.
Crumlin-road, Belfast.
Clonakilty, County Cork.
Kilkenny.
Kinsale, County Cork.
Loughrea, County Galway.
Mallow, County Cork.
Merrion, County Dublin.
Queenstown, County Cork.
Shamrock Lodge, Belfast.
Sligo.
Thurles, County Tipperary.
Tipperary.
Waterford.

When the girls' schools were being examined for the purpose of awarding the Challenge Shield in Domestic Science, it seemed a suitable time that a classification of all the schools should again be made. It is now four years since the schools were classified, and it gives me great pleasure to be able to report that marked improvement has been made in the interval by many schools, as may be seen from the much larger number of schools which I now feel justified in placing in the first-class than in 1903. As on that occasion, the schools are arranged in groups, the schools in each group being placed in alphabetical order. The chief points, by which I was guided in making this classification, were not only the smartness and intelligence of the children and their healthy and neat appearance, but the general atmosphere of order and industry which I observed in the schools, and the suitability of the schools as places for the training of children, having regard to the staff of teachers provided, and the courses of instruction arranged for their literary, physical, and industrial development.

Classification of Industrial Schools.

GIRLS' INDUSTRIAL SCHOOLS.

FIRST CLASS.

First Division.

Hampton House, Belfast (P.).
Acting Manager—Miss Thorpe.

Monaghan (R.C.).
Acting Manager—Mrs. M. P. O'Sullivan.

St. Vincent's, Limerick (R.C.).
Acting Manager—Mrs. Ellen Dore.

Wexford (R.C.).
Acting Manager—Mrs. M. A. Maguire.

Second Division.

Benada Abbey, Co. Sligo (R.C.).
Acting Manager—Mrs. Alice Walsh.

Crumlin Road, Belfast (R.C.).
Acting Manager—Mrs. Hamill.

Clonakilty (R.C.).
Acting Manager—Mrs. M. de S. Murray.

Kilkenny (R.C.).
Acting Manager—Mrs. F. O'Flynn.

Kinsale (R.C.).
Acting Manager—Mrs. M. F. Gavin.

Loughrea (R.C.).
Acting Manager—Mrs. Margaret Bourke.

Mallow (R.C.).
Acting Manager—Mrs. M. C. Cheevers.

Merrion, Co. Dublin (R.C.).
Acting Manager—Mrs. Evelyn Vavasour.

Newtownforbes (R.C.).
Acting Manager—Mrs. Mary C. Farrington.

Queenstown (R.C.).
Acting Manager—Mrs. Mary B. O'Sullivan.

St. George's, Limerick (R.C.).
Acting Manager—Mrs. Bridget Haugh.

Shamrock Lodge, Belfast (P.).
Acting Manager—Miss Browne.

Sligo (R.C.).
Acting Manager—Mrs. Mary B. O'Connell.

Summerhill, Co. Roscommon (R.C.).
Acting Manager—Mrs. E. Jones.

Thurles (R.C.).
Acting Manager—Mrs. M. B. Hogan.

Tipperary (R.C.).
Acting Manager—Mrs. Mary Frances Cantwell.
Waterford (R.C.).
Acting Manager—Mrs. Mary Nora Shearin.
Whiteabbey, Belfast (R.C.).
Acting Manager—Mrs. M. E. M'Cartin.

SECOND CLASS.

First Division.

Ballaghadereen, Co. Mayo (R.C.).
Acting Manager—Mrs. Mary E. Malone.
Ballinasloe (R.C.).
Acting Manager—Mrs. Mary B. Kelly.
Cashel (R.C.).
Acting Manager—Mrs. M. Xavier J. O'Carroll.
Dundalk (R.C.).
Acting Manager—Mrs. Mary Keegan.
Killarney (R.C.).
Acting Manager—Mrs. M. B. MacSwiney.
Parsonstown (R.C.).
Acting Manager—Mrs. Mary C. Cassidy.
Roscommon (R.C.).
Acting Manager—Mrs. M. F. O'Beirne.
St. Finbar's, Cork (R.C.).
Acting Manager—Mrs. Kate Hickey.
Strabane (R.C.).
Acting Manager—Mrs. Mary Joseph White.
Westport (R.C.).
Acting Manager—Mrs. M. P. Cullen.

Second Division.

Booterstown, Co. Dublin (R.C.).
Acting Manager—Mrs. K. O'Keeffe.
Cavan (R.C.).
Acting Manager—Mrs. Mary E. Donnelly.
Meath, Bray (P.).
Acting Manager—Miss Helen Stevenson.
Moate (R.C.).
Acting Manager—Mrs. M. A. M'Donnell.
New Ross (R.C.).
Acting Manager—Mrs. Maryanne O'Brien.
Pembroke Alms House, Tralee (R.C.).
Acting Manager—M. Louis O'Callaghan.
St. Anne's, Galway (R.C.).
Acting Manager—Mrs. Mary Leeson.

Third Division.

Clifden (R.C.).
Acting Manager—Mrs. Mary X. Reville.
Ennis (R.C.).
Acting Manager—Mrs. Mary Columba Kelly.
Golden Bridge, Co. Dublin (R.C.).
Acting Manager—Mrs. M. S. Howell.
Lakelands (R.C.).
Acting Manager—Mrs. Frances Mulhall.
Lurgan (R.C.).
Acting Manager—Mrs. M. Malachy Mathews.
Middleton (R.C.).
Acting Manager—Mrs. M. S. Tunney.
Templemore (R.C.).
Acting Manager—Mrs. M. A. M'Donnell.

BOYS' INDUSTRIAL SCHOOLS.

First Class.

First Division.

[None.]

Second Division.

Artane, Co. Dublin (R.C.).
Acting Manager—Rev. Br. P. O. Ryan.
Balmoral, Belfast (P.).
Acting Manager—David M'Dowell, Esq.
Carriglea, Co. Dublin (R.C.).
Acting Manager—Rev. Br. J. P. Kinahan.

Second Class.

First Division.

Baltimore (R.C.).
Acting Manager—Rev. F. M'Carthy.
Cappoquin (R.C.).
Acting Manager—Mrs. M. J. Cullen.
Clonmel (R.C.).
Acting Manager—Rev. M. Fennell.
Danesfort (R.C.)
Acting Manager--Rev. John Harrington.

Drogheda (R.C.).
Acting Manager—Mrs. Clare Redman.
Greenmount (R.C.).
Acting Manager—Rev. Br. Patrick L. Cullane.
Killybegs (R.C.).
Acting Manager—Rev. John Boyle.
St. Joseph's, Limerick (R.C.).
Acting Manager—Rev. Br. P. L. Maher.
Meath, Blackrock (P.).
Acting Manager—John R. Beeby, Esq.
Milltown, Belfast (R.C.).
Acting Manager—Rev. D. M'Cartin.
Passage West, Co. Cork (R.C.).
Acting Manager—Mrs. Mary P. Murphy.
Rathdrum, Co. Wicklow (R.C.).
Acting Manager—Mrs. M. G. Hayden.
Salt Hill, Galway (R.C.).
Acting Manager—Rev. Br. T. G. Stephens.
Kilkenny (R.C.).
Acting Manager—Mrs. A. Cullen.
Nazareth Lodge (R.C.).
Acting Manager—Mrs. M. A. Carey.

Second Division.

Killarney (R.C.).
Acting Manager—Mrs. M. B. MacSwiney.
Letterfrack (R.C.).
Acting Manager—Rev. Br. J. T. Butler.
Tralee (R.C.).
Acting Manager—Rev. Br. L. C. Carroll.

In concluding my Report, I wish to express my thanks to the Assistant Inspector and the members of my staff for the assistance I have received from them during the past year.

JOHN FAGAN,

H. M. Inspector of Reformatory and Industrial Schools in Ireland.

APPENDIX.

Appendix I.

1.—List of Reformatory Schools in Ireland, with date of Certificate, Locality, Name of Corresponding Manager, and Sex and Religion of Young Offenders received.

County.	Name and Situation of Reformatory, Date of Certificate, and Name of Corresponding Manager.
Antrim, . .	1. Malone Reformatory School for Protestant boys, Belfast. Certified 13th March, 1860. Manager, James Lee, Esq.
Dublin, . .	2. High Park Reformatory School for R. C. girls, Drumcondra, Dublin. Certified 21st December, 1858. Manager, Mrs. Kate Morris.
King's Co., .	3. King's County Reformatory School for R. C. boys, Philipstown. Certified 22nd December, 1870. Manager, Rev. L. J. Walshe.
Limerick, .	4. St. Joseph's Reformatory School for R. C. girls, Limerick. Certified 25th January, 1859. Manager, Mrs. Bridget Haugh.
Wicklow,	5. St. Kevin's Reformatory School for R. C. boys, Glencree, Enniskerry. Certified 12th April, 1859. Manager, Rev. P. M'Ardle.

2.—List of Industrial Schools, showing locality, &c.

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Antrim, . .	1. Balmoral Industrial School, Belfast, for Protestant boys. Formerly Fox Lodge, which was certified 10th January, 1884. The Certificate for Balmoral School was increased on the surrender of the "Grampian" certificate from 100 to 350 on 13th March, 1899. Certificate increased to 400 in October, 1902. C.M.—David M'Dowell, esq.	400
,, . .	2. Hampton House Industrial School for Protestant girls, near Belfast. Certified 13th April, 1874. Increased on 5th January, 1897, to 156. C.M.—Rev. A. J. Wilson.	156
,, . .	3. St. Patrick's Industrial School for R. C. boys, Milltown, Belfast. This is a transfer of the certificate from the school, Donegall-street, Belfast, certified 27th August, 1869. Re-certified 11th January, 1873. C.M.—Rev. D. M'Cashin, Administrator, Belfast.	150
. .	4. Nazareth Lodge Industrial School for R. C. boys under 10 years of age, Belfast. Certified 11th November, 1902. C.M.—Mrs. Margaret Hendrick.	50
,, . .	5. St. Patrick's Industrial School for R. C. girls, Belfast. Certified 27th August, 1869. The certificate was reduced from 110 to 90 on 2nd September, 1898. C.M.—Rev. James Hamill, Belfast.	90
, . .	6. Sacred Heart, Abbeyville, White Abbey, Belfast, for R. C. girls. Certified 6th June, 1896. Increased to 100 on 18th September, 1897. Increased to 120 on 2nd September, 1898. C.M.—Rev. James Hamill.	120
,, . .	7. Shamrock Lodge, Belfast, for Protestant Girls. Certified 26th March, 1887. Certificate was increased to 70 on 3rd August, 1892, to 88 on 8th May, 1895, and to 118 on the 13th January, 1902. C.M.—Mrs. Margaret Byers.	118
Armagh, .	8. Middletown Industrial School for R.C. girls. Certified 21st June, 1881. C.M.—Mrs. M. G. Tunney.	50
,, . .	9. Lurgan Industrial School for R. C. boys under 10 years of age. Certified 18th April, 1905. C.M—Mrs. M. Malachy Mathews.	50
, . .	10. Lurgan Industrial School for R. C. girls. Certified 28th April, 1888. C.M.—Mrs. M. Malachy Mathews.	50

2.—List of Industrial Schools—*continued.*

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Cavan, . .	11. St. Joseph's Industrial School for R. C. girls, Cavan. Certified 1st October, 1869. C.M.—Mrs. Mary E. Donnelly.	87
Clare, . .	12. Ennis Industrial School for R.C. girls. Certified 28th February, 1880. C.M.—Mrs. Mary Columba Kelly.	80
Cork, . .	13. St. Aloysius' Industrial School for R. C. girls, Clonakilty. Certified 13th November, 1869. C.M.—Mrs. M. de S. Murray.	130
,, . .	14. St. Coleman's Industrial School for R. C. girls, Queenstown. Certified 5th September, 1870. C.M.—Mrs. Mary B. O'Sullivan.	46
,, . .	15. Our Lady of Mercy Industrial School for R. C. girls, Kinsale. Certified 19th November, 1869. C.M.—Mrs. M. F. Galvin.	150
,, . .	16. Danesfort Industrial School for R. C. boys, Upton, Co. Cork. Certified 13th April, 1889. C.M.—Rev. John Harrington.	200
,, . .	17. Mallow Industrial School for R. C. girls. Certified 10th April, 1880. C.M.—Mrs. M. C. Cheevers.	60
,, . .	18. The Passage West Industrial School for young boys under 10 years of age, certified 27th September, 1882. C.M.—Mrs. Mary P. Murphy.	50
,, . .	19. Baltimore Fishing School for R. C. boys. Certified 12th August, 1887. C.M.—Rev. F. M'Carthy.	150
,, . .	20. St. Finbar's Industrial School for R. C. girls, Sunday's Well, Cork. Certified 29th April, 1870. New Buildings re-certified for an increased number of children, 2nd December, 1872. On 27th April, 1897, the Certificate was increased to 172. C.M.—Mrs. Kate Hickey.	172
,, . .	21. Greenmount Industrial School for R. C. boys. Certified 14th March, 1871. C.M.—Rev. Br. Patrick L. Culhane.	200
Donegal, .	22. St. Columba, Killybegs, Co. Donegal, for R. C. boys. Certified 20th February, 1896. Certificate increased from 100 to 144 on 31st December, 1907. C.M.—Rev. John Boyle.	144

2.—List of Industrial Schools—*continued.*

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Dublin, . .	23. Artane Industrial School for R. C. boys, Artane, Certified 9th July, 1870. C.M.—Rev. Br. P. O. Ryan.	800
,, . .	24. Booterstown Industrial School for R. C. girls, Booterstown. Certified 10th November, 1870. Certificate increased from 54 to 80 on 21st September, 1901. C.M.—Mrs. K. O'Keeffe.	80
,, .	25. Golden Bridge Industrial School for R.C. girls. Certified 13th July, 1880. C.M.—Mrs. M. G. Howell.	150
,, . .	26. The Carriglea Park Industrial School (formerly Kilmore), Monkstown, co. Dublin, for R. C. boys. Certified 26th September, 1894. Increased to 150 from 1st April, 1896. C.M. —Rev. Br. J. P. Kinahan.	150
, . .	27. St. Mary's Industrial School for R. C. girls, Lakelands, Sandymount. Certified 25th February, 1869. C.M.—Mrs. Frances Mulhall.	70
,, . .	28. Meath Industrial School for Protestant boys, Blackrock. Certified 5th May, 1871. Increased on 4th December, 1902, to 150. C.M. —John R. Beeby, esq.	150
, . .	29. Merrion Industrial School for R. C. girls. Certified 10th June, 1872. C.M. Mrs. Evelyn Vavasour.	150
Galway, . .	30. St. Bridget's Industrial School for R. C. girls, Loughrea. Certified 25th November. 1869. C.M.—Mrs. Margaret Bourke.	112
. .	31. St. Joseph's, Ballinasloe, for R. C. girls. Certified 8th July, 1884. C.M.—Mrs. Mary B. Kelly.	60
, . .	32. Clifden Industrial School for R. C. girls, Connemara. Certified 15th July, 1872. C.M.— Mrs. Mary X. Reville.	80
. .	33. St. Joseph's Industrial School, Letterfrack, Galway, for R. C. boys. Certified 1st April, 1886. C.M.—Rev. Br. J. T. Butler.	150
,, . .	34. *Oughterard Industrial School for R. C. girls. Certified 12th May, 1873. C.M.—Mrs. Elizabeth Martyn.	—

* This school was closed on 31st December, 1907.

2.—List of Industrial Schools—*continued.*

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Galway, . .	35. St. Anne's Industrial School for R. C. girls, Galway. Certified 3rd December, 1869. C.M. —Mrs. Mary Leeson.	77
,, .	36. Salthill Industrial School for R. C. boys. Certified September, 1871. C.M.—Rev. Br. T. G. Stephens.	200
Kerry, . .	37. St. Joseph's Home Industrial School, Killarney—For R. C. girls; certified 4th November, 1869. For R. C. young boys; certified 19th August, 1872. C.M.—Mrs. M. B. MacSwiney.	103
,, .	38. St. Joseph's Industrial School for R. C. boys, Tralee. Certified 25th March, 1871. C.M.— Rev. Br. W. C. Carroll.	100
, .	39. Pembroke Alms House Industrial School for R. C. girls, Tralee. Certified 4th November, 1869. C.M.—Mrs. M. Louis O'Callaghan.	70
Kilkenny, .	40. Kilkenny Industrial School for R. C. young boys. Certified 13th December, 1879. C.M.—Mrs. M. Harrington.	162
,, . .	41. Kilkenny Industrial School for R. C. girls. Certified 22nd March, 1873. C.M.—Mrs. F. O'Flynn.	100
King's, . .	42. St. John's Industrial School for R. C. girls, Parsonstown. Certified 5th July, 1870. C.M.— Mrs. Mary C. Cassidy.	80
Limerick, .	43. St. George's Industrial School for R. C. girls, Limerick. Certified 11th December, 1869. Increased by 20 from 1st April, 1896. C.M. —Mrs. Bridget Haugh.	100
,, .	44. St. Vincent's Industrial School for R. C. girls, Limerick. Certified 8th December, 1869. C.M.—Mrs. Ellen Dore.	130
,, .	45. Limerick School for R. C. boys. Certified 18th August, 1875. Increased to 170, 27th April, 1897. C.M.—Rev. Br. P. L. Maher.	170
Longford, .	46. Our Lady of Succour Industrial School for R. C. girls, Newtownforbes. Certified 29th November, 1869. C.M.—Mrs. Mary C. Farrington.	145
Louth, . .	47. House of Charity Industrial School for R. C. boys under 10 years of age, Drogheda. Certified 17th October, 1870. C.M.—Mrs. Clare Redman.	92

2.—List of Industrial Schools—*continued.*

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Louth, . .	48. The Dundalk Industrial School for R. C. girls. Certified 12th July, 1881. C.M.—Mrs. Mary Keegan.	80
Mayo, . .	49. St. Columba Industrial School for R. C. girls, Westport. Certified 13th April, 1871. C.M.—Mrs. M. P. Cullen.	105
,, .	50. St. Francis Xavier's Industrial School for R. C. girls, Ballaghaderreen. Certified 8th June, 1886. C.M.—Mrs. Mary E. Malone.	75
Monaghan, .	51. St. Martha's Industrial School for R. C. girls, Monaghan. Certified 4th November, 1869. Certificate was increased from 67 to 88 on 25th Sept., 1903. C.M.—Mrs. M. P. O'Sullivan.	88
Roscommon, .	52. St. Monica's Industrial School for R. C. girls, Roscommon. Certified 29th November, 1869. C.M.—Mrs. M. F. O'Beirne.	44
,, .	53. Summerhill Industrial School for R. C. girls, Athlone. Certified 17th October, 1882. C.M.—Mrs. E. Jones.	133
Sligo, . .	54. The Benada Abbey Industrial School for R. C. girls, Tubbercurry. Certified 26th June, 1882. C.M.—Mrs. Alice Walsh.	50
,, .	55. St. Lawrence Industrial School for R. C. girls, Sligo. Certified 22nd April, 1871. C.M.—Mrs. Mary B. O'Connell.	120
Tipperary, .	56. Clonmel Industrial School for R. C. boys. Certified 12th January, 1885. C.M.—Rev. M. Fennell.	150
,, .	57. St. Augustine's Industrial School for R. C. girls, Templemore. Certified 20th August, 1870. C.M.—Mrs. M. A. M'Donnell.	60
,, .	58. St. Francis' Industrial School for R. C. girls, Cashel. Certified 8th December, 1869. C.M.—Mrs. M. Xavier J. O'Carroll.	110
,, .	59. St. Louis' Industrial School for R. C. girls Thurles. Certified 11th December. 1869. C.M.—Mrs. M. B. Hogan.	45
,, .	60. Tipperary Industrial School for R. C. girls. Certified 1st May, 1872. C.M.—Mrs. Mary Frances Cantwell.	64
Tyrone, . .	61. St. Catherine's Industrial School for R. C. girls, Strabane. Certified 30th November, 1869. C.M.—Mrs. Mary Joseph White.	100

2.—List of Industrial Schools—*continued.*

County.	Name and Situation of Industrial School, Date of Certificate, and Name of Corresponding Manager.	Number for which Treasury Pay.
Waterford, .	62. Cappoquin Industrial School for R. C. young boys. Certified 1st March, 1873. C.M.—Mrs. M. J. Cullen.	51
, .	63. St. Dominick Industrial School for R. C. girls, Waterford. Certified 13th April, 1871. Was increased to 160 on 27th April, 1897. C.M.—Mrs. Mary Nora Shearin.	160
Westmeath, .	64. Mount Carmel Industrial School for R. C. girls, Moate. Certified 9th April, 1870. C.M.—Mrs. M. A. M'Donnell.	53
Wexford, .	65. St. Aidan's Industrial School for R. C. girls, New Ross. Certified 13th November, 1869. C.M.—Mrs. Marianne O'Brien.	70
,, .	66. St. Michael's Industrial School for R. C. girls, Wexford. Certified 25th November, 1869. C.M.—Mrs. M. A. Maguire.	106
Wicklow, .	67. Meath Industrial School for Protestant girls, Bray. Certified 4th October, 1872. Certificate was increased from 50 to 70 on the 27th December, 1901, and from 70 to 100 on the 31st March, 1902. C.M.—Miss Edith Gilbert.	100
, .	68. The Rathdrum Industrial School for young R. C. boys under 10 years of age. Certified 31st December, 1883. C.M.—Mrs. M. G. Hayden.	50
	Total, . .	7,998

On 31st of December, 1907, there were certificates for—

	Protestants.	Roman Catholics.	Total.
Males, . . .	550	3,069	3,619
Females, . . .	374	3,902	4,276
	924	6,971	7,895
Mixed, ...		103	103
	Gross Total,	7,074	7,998

	Males.	Females.	Mixed.*	
Protestant Schools, .	2	3	–	5
Roman Catholic Schools,	19	42	1	62
Total, . .	21	45	1	67

* The School at St. Joseph's Home, Killarney, receives both boys and girls—25 of the former and 78 of the latter.

List of PROTESTANT MALE SCHOOLS on 31st December, 1907.

1. Balmoral,	400
2. Meath Industrial School, Blackrock,	150
Total,	550

List of PROTESTANT FEMALE SCHOOLS on 31st December, 1907.

1. Hampton House,	156	3. Meath, Bray,	100
2. Shamrock Lodge,	118	Total,	374

List of ROMAN CATHOLIC MALE SCHOOLS on 31st December, 1907.

1. St. Patrick's Male, Milltown,	150	14. Kilkenny, Male,	162
2. Nazareth Lodge, Belfast,	50	15. Limerick, Male,	170
3. Lurgan,	50	16. House of Charity, Drogheda,	92
4. Danesfort, Upton,	200	17. St. Joseph's, Clonmel,	150
5. Passage, West,	50	18. Cappoquin,	51
6. Baltimore,	150	19. St. Kyran's, Rathdrum,	50
7. Greenmount,	200	Total,	3,069
8. Killybegs,	144		
9. Artane,	800	*Mixed School.*	
10. Carriglea,	150		
11. Letterfrack,	150	St. Joseph's Home, Killarney,	25
12. Salt Hill, Galway,	200		
13. St. Joseph's, Tralee,	100	Total Roman Catholic Boys,	3,094

List of ROMAN CATHOLIC FEMALE SCHOOLS on 31st December, 1907.

1. St. Patrick's, Female, Crumlin-road,	90	25. Our Lady of Succour, Newtownforbes,	145
2. Abbeyville,	120	26. St. Joseph's, Dundalk,	80
3. Middletown,	50	27. St. Columba, Westport,	105
4. Lurgan,	50	28. Ballaghaderreen,	75
5. Cavan,	87	29. St. Martha's, Monaghan,	88
6. Ennis,	80	30 St. Monica's, Roscommon,	44
7. St. Aloysius, Clonakilty,	130	31. Summer-hill, Athlone,	133
8. St. Coleman's, Queenstown,	46	32. Benada Abbey, Tubbercurry,	50
9. Our Lady of Mercy, Kinsale,	150	33. St. Laurence, Sligo,	120
10. Mallow,	60	34. St. Augustine's, Templemore,	60
11. St. Finbar's, Sunday's Well,	172	35. St. Francis', Cashel,	110
12. Booterstown,	80	36. St. Louis', Thurles,	45
13. Golden Bridge,	150	37. Tipperary,	64
14. Lakelands,	70	38. St. Catherine's, Strabane,	100
15. Merrion,	150	39. St. Dominick's, Waterford,	160
16. St. Bridget's, Loughrea,	112	40. Mount Carmel, Moate,	53
17. St. Joseph's, Ballinasloe,	60	41. St. Aidan's, New Ross,	70
18. Clifden, Galway,	80	42. St. Michael's, Wexford,	106
19. St. Anne's, Galway,	77	Total,	3,902
20. Pembroke Alms House, Tralee,	70		
21. Kilkenny, Female,	100	*Mixed School.*	
22. St. John's, Parsonstown,	80		
23. St. George's, Limerick,	100	St. Joseph's Home, Killarney,	78
24. St. Vincent's, Limerick,	130	Total Roman Catholic Girls,	3,980

Appendix II.

1.—Reformatory Schools.—Returns of Admissions, Discharges, &c., for 1907.

—	Boys.			Girls.		Total.		Gross Total.
	Malone, Belfast.	Philipstown, King's Co.	St. Kevin's, Glencree.	High Park, Dublin.	St. Joseph's, Limerick.	Boys.	Girls.	
Under detention, December 31, 1906:—								
In School,	110	208	194	16	22	512	38	550
On Licence,	6	3	–	1	–	9	1	10
In Prison,	–	–	–	–	–	–	–	–
Absconded, Sentence unexpired,	2	–	–	–	–	2	–	2
In School, Sentence expired,	–	–	–	–	–	–	–	–
Total,	118	211	194	17	22	523	39	562
Admitted by Commitment in 1907,	26	43	72	9	6	141	15	156
Admitted by Transfer,	–	–	–	–	–	–	–	–
Total,	26	43	72	9	6	141	15	156
Discharged, Transferred, or Died in 1907,	24	50	35	6	10	109	16	125
Under detention, December 31, 1907:—								
In School,	111	197	231	20	18	539	38	577
On Licence,	7	6	–	–	–	13	–	13
In Prison,	–	–	–	–	–	–	–	–
Absconded, Sentence unexpired,	2	1	–	–	–	3	–	3
In School, Sentence expired,	–	–	–	–	–	–	–	–
Total,	120	204	231	20	18	555	38	593
Average number of Inmates,	109·1	205	214	18	35*	–	–	–

* Including voluntary Inmates.

2.—Return of Sentences passed on Juvenile Offenders received into Reformatory Schools in the year 1907. Also the modes of disposal of those discharged during the year 1907.

—	Boys.			Girls.		Total.		Gross Total.
	Malone, Belfast.	Philipstown, King's Co.	St. Kevin's, Glencree.	High Park, Dublin.	St. Joseph's, Limerick.	Boys.	Girls.	
Reformatory Sentence—								
3 Years,	11	20	25	3	4	56	7	63
4 Years,	4	5	18	5	–	27	5	32
5 Years,	11	18	29	1	2	58	3	61
Total,	26	43	72	9	6	141	15	156
Mode of Discharge—								
To Employment or Service,	1	10	19	1	8	30	9	39
Returned to Friends,	6	22	7	3	1	35	4	39
Emigrated,	3	–	–	–	–	3	–	3
Sent to Sea,	2	–	–	–	–	2	–	2
Enlisted,	10	16	7	–	–	33	–	33
Discharged on account of Disease,	–	–	–	1	–	–	1	1
Discharged as Incorrigible or to Penal Servitude,	–	–	–	–	–	–	–	–
Transferred,	–	–	–	–	–	–	–	–
Died,	–	1	–	1	–	1	1	2
Absconded, Sentence expired,	–	–	–	–	–	–	–	–
Discharged, being illegally committed,	2	1	2	–	1	5	1	6
Total,	24	50	35	6	10	109	16	125

3.—Reformatory Schools.—Return showing the Number of Admissions, Discharges, and Modes of Discharge from 1859 to 1907.

—	Total.		Gross Total.
	Boys.	Girls.	
Admissions.			
1859, . .	96	44	140
1860, . .	178	68	246
1861, . .	137	59	196
1862, .	141	33	174
1863, . .	119	62	181
1864, . .	139	46	185
1865, . .	118	42	160
1866, . .	136	27	163
1867, . .	164	40	204
1868, . .	218	48	266
1869, . .	215	44	259
1870, . .	220	45	265
1871, . .	235	51	286
1872, . .	249	58	307
1873, . .	250	44	294
1874, . .	219	65	284
1875, . .	198	46	244
1876, . .	188	57	245
1877, . .	210	65	275
1878, . .	228	40	268
1879, . .	221	44	265
1880, . .	243	52	295
1881, . .	231	38	269
1882, . .	278	41	319
1883, . .	196	54	250
1884, . .	199	45	244
1885, . .	146	18	164
1886, . .	175	30	205
1887, .	146	32	178
1888, . .	193	30	223
1889, . .	255	23	278
1890, . .	127	19	146
1891, . .	141	21	162
1892, . .	131	14	145
1893, . .	110	28	138
1894, . .	120	15	135
1895, . .	112	10	122
1896, . .	110	9	119
1897, . .	157	16	173
1898, . .	120	16	136
1899, . .	102	20	122
1900, . .	171	14	185
1901, . .	121	12	133
1902, . .	102	16	118
1903, . .	118	26	144
1904, . .	119	11	130
1905, . .	164	7	171
1906, . .	127	12	138
1907. . .	141	15	156
Total, .	8,234	1,672	9,906

—	Total.		Gross Total.
	Boys.	Girls.	
Discharges.			
To employment or service,	2,410	644	3,054
To friends, . . .	2,954	614	3,568
Emigrated, . . .	1,013	164	1,177
Sent to sea, . . .	153	–	153
Enlisted, . .	590	–	590
Discharged as diseased, .	55	27	82
Discharged as incorrigible or sentenced to penal servitude, . . .	51	10	61
Transferred, . . .	115	119	234
Died, ...	189	39	228
Absconded, sentence expired, ...	102	9	111
Discharged on appeal, or being illegally committed, . . .	46	8	54
Total, .	7,678	1,634	9,312
Under detention, 31st Dec., 1907, . . .	555	38	593
Viz.:			
In school, . .	539	38	577
On licence, . . .	13	–	13
In prison, . . .	–	–	–
Absconded, sentence unexpired, . . .	3	–	3
Retained in school, sentence expired, . .	–	–	–

There was one boy admitted, in November, 1889, into Philipstown Reformatory School whose sentence was quashed in 1890, and who, therefore, should not have been included amongst the admissions in 1889.

4.—Reformatory Schools.—Discharges for the years 1904, 1905, and 1906, showing the number Doing Well, Convicted of Crime, &c., since Discharge, to December 31st, 1907.

—	Boys.			Girls.		Total.		Gross Total.
	Malone, Belfast.	Philipstown, King's Co.	St. Kevin's, Glenorec.	High Park, Dublin.	St. Joseph's, Limerick.	Boys.	Girls.	
Mode of Discharge—								
To Employment or Service,	40	52	54	8	19	146	27	173
Returned to Friends,	27	121	33	4	4	181	8	189
Emigrated,	4	11	–	–	1	15	1	16
Sent to Sea,	2	4	–	–	–	6	–	6
Enlisted,	11	7		–	–	30	–	30
Specially Discharged,	–	–	12	–	–	–	–	–
Discharged as Incorrigible or sentenced to penal servitude,	–	–	–	–	–	–	–	–
Absconded and not Recovered,	3	1	–	–	–	4	–	4
Total,	87	196	99	12	24	382	36	418
Subsequent Character and Circumstances—								
Since Dead,	–	1	–	–	1	1	1	2
Doing well,	75	173	96	12	20	344	32	376
Doubtful,	2	2	–	–	2	4	2	6
Reconvicted of Crime,	4	4	2	–	1	10	1	11
Unknown,	5	16	1	–	–	22	–	22
Recommitted to a Reformatory School,	1	–	–	–	–	1	–	1
Total,	87	196	99	12	24	382	36	418

5.—Reformatory Schools.—Return of Receipts

Receipts and Expenditure.	BOYS.		
	Malone, Belfast.	St. Conleth's, Philipstown, King's Co.	St. Kevin's, Glencree, Co. Wicklow.
Receipts.	£ s. d.	£ s. d.	£ s. d.
Treasury Allowances,	1,713 11 8	3,257 13 10	3,215 7 10
Subscriptions, Legacies, Donations, &c.,	36 18 0	22 10 0	150 5 6
Payments from County and Borough Rates,	755 1 6	1,416 1 0	1,707 13 3
Hire of Labour,	—	—	—
Sundries,	17 4 6	6 8 4	—
Total Receipts,	2,522 15 8	4,702 13 2	5,073 6 7
Expenditure.			
Ordinary Charges.			
Officers' Pay (Salaries and House Wages),	380 2 10	849 8 0	615 18 0
Provisions (Officers),	110 0 0	415 0 0	212 10 0
,, (Boys or Girls),	856 18 6	2,238 7 10	1,935 10 0
Clothing of Inmates,	318 17 10	596 3 9	683 5 6
Washing, Fuel, and Light,	236 6 9	379 12 5	457 18 6
Repairs, Rates and Taxes,	174 18 6	178 1 7	241 6 0
Furniture and House Sundries,	67 4 2	156 4 2	318 18 9
Printing and Office Expenses,	128 12 6	128 17 8	107 3 7
Travelling and Police Charges,	7 3 2	68 3 10	122 11 7
Medical Expenses, Funerals, &c.,	49 16 2	86 12 0	93 3 7
Sundries, Rewards, &c.,	88 11 6	106 14 6	237 7 3
Total Ordinary Charges,	2,418 11 11	5,203 5 9	5,025 12 9
Extra Charges.			
Rent of School Premises,	67 4 0	40 0 0	—
Interest,	32 12 11	18 0 0	—
Disposal, Home,	35 2 7	124 14 0	120 16 6
,, Emigration,	27 0 0	—	—
Building and Land,	1 5 0	—	395 15 3
Total Extra Charges,	163 4 6	182 14 0	516 11 9
Total Expenditure,	2,581 16 5	5,385 19 9	5,542 4 6
Profit (including Stock on hands and Bills),	779 4 4	699 17 8	450 19 6
Loss,	—	—	—

in, and EXPENDITURE for, the Year 1907.

GIRLS.		RECEIPTS AND EXPENDITURE.
High Park, DUBLIN.	St. Joseph's, LIMERICK.	
£ s. d.	£ s. d.	RECEIPTS.
263 15 8	320 0 0	Treasury Allowances.
—	143 8 0	Subscriptions, Legacies, Donations, &c.
119 16 11	133 5 10	Payments from County and Borough Rates.
—	—	Hire of Labour.
—	—	Sundries.
383 12 7	596 13 10	Total Receipts.
		EXPENDITURE.
		Ordinary Charges.
100 0 0	130 0 0	Officers' Pay (Salaries and House Wages).
—	—	Provisions (Officers).
145 0 0	334 13 11	,, (Boys or Girls).
39 8 7	74 3 1	Clothing of Inmates.
30 0 0	37 7 2	Washing, Fuel, and Light.
30 17 6	86 11 3	Repairs, Rates, and Taxes.
—	23 12 4	Furniture and House Sundries.
5 0 0	14 16 2	Printing and Office Expenses.
1 0 0	—	Travelling and Police Charges.
7 0 0	18 6 2	Medical Expenses, Funerals, &c.
1 0 0	18 7 3	Sundries, Rewards, &c.
359 6 1	737 17 4	Total Ordinary Charges.
		Extra Charges.
70 0 0	40 0 0	Rent of School Premises.
—	144 18 2	Interest.
12 0 0	60 11 9	Disposal, Home.
—	—	,, Emigration.
—	—	Building and Land.
82 0 0	245 9 11	Total Extra Charges.
441 6 1	983 3 3	Total Expenditure.
56 5 0	180 0 3	Profit (including Stock on hands and Bills).
—	—	Loss.

6.—Reformatory Schools.—Summary showing Expenditure and Cost per Head for the Year 1907.

Reformatory Schools.	Cost of Maintenance and Management.	Add Rent and Interest.	Add Expenses of Disposal.	Gross Total of Expenditure.	Deduct Industrial Profit.	Net Cost of Expenditure.	Average Number of Inmates.	Net Cost per Head per Annum.
	£	£	£	£	£	£		£
Malone, Belfast,	2,419	100	62	2,581	779	1,802	109	16·5
Philipstown, King's Co.	5,203	58	125	5,386	700	4,686	205	22·8
St. Kevin's, Glencree,	5,026	–	121	5,147	451	4,696	214	21·9
High Park, Dublin,	359	70	12	441	56	385	18	21·4
St. Joseph's, Limerick,	738	185	61	984	180	804	35*	22·9
Total, £	13,745	413	381	14,539	2,166	12,373	–	–

* Voluntary inmates included.

INDUSTRIAL SCHOOLS

7.—Industrial Schools.—Return of Admissions,

—	Belmoral, Belfast.	Hampton House, Belfast.	St. Patrick's, Milltown, Belfast.	Nazareth Lodge, Belfast.	St. Patrick's, Crumlin-road, Belfast.	Sacred Abbey, Abbeyville, Belfast.	Shamrock Lodge, Belfast.	Middleton, co. Armagh.
	1	2	3	4	5	6	7	8
	B.	G.	B.	B.	G.	G.	G.	G.
Under Detention, 31st Dec., 1906:—								
In School (within number paid for under rules).	400	156	150	50	90	119	118	49
„ (in excess of number paid for, or under 6 years).	12	11	12	41	7	6	7	2
On Licence	15	11	7	1	5	11	5	-
Absconded, Sentence unexpired, . .	1	1	-	-	-	-	-	-
Retained in School, Sentence expired,	1	-	-	-	2	-	3	-
Total, ...	429	179	169	92	104	136	133	51
Admitted by Commitment in 1907, .	78	26	39	30	7	31	29	15
„ Transfer, ...	-	-	-	-	24	-	-	-
„ Re-committal, . . .	-	-	-	-	-	-	-	-
Total, ...	78	26	39	30	31	31	29	15
Discharged, Transferred, or Died in 1907,	74	20	40	33	31	28	26	12
Under Detention, 31st December, 1907:—								
In School (within number paid for under rules).	400	156	150	50	90	118	118	49
„ (in excess of number paid for, under 6 years).	10	18	11	39	5	12	11	5
On Licence, ...	22	10	7	-	7	9	5	-
Absconded, Sentence unexpired, . .	-	1	-	-	-	-	-	-
Retained in School, Sentence expired,	1	-	-	-	2	-	2	-
Total, ...	433	185	168	89	104	139	136	54
AVERAGE NUMBER OF CHILDREN.								
(i.) Inmates under Orders of Detention and paid for by Treasury.	400	156	150	50	89·9	118·3	118	49
(ii.) Inmates under Orders of Detention but as yet not chargeable to the Treasury, being under 6 years of age.	3·91	5	10·1	11	-	7·1	5·61	5
(iii.) Inmates above the age of 6 years under Orders of Detention but as yet not chargeable to the Treasury, being in excess of the number limited by the rules of the School.	6·44	8	-	26·8	1·2	-	3	-
(iv.) Voluntary Inmates (Inmates not under Orders of Detention) supported by the Managers out of funds other than those received from the Treasury.	4·69	2	2·3	-	1·9	6·6	12	-
Total, ...	415·04	171	162·4	87·8	93	132	138·61	54
Average Number of Externs attending the School.	-	-	-	-	-	-	-	117

DISCHARGES, &c., during the Year ending 31st December, 1907.

	Lurgan, co. Armagh	Lurgan, co. Armagh.	St. Joseph's, Cavan.	Ennis, co. Clare.	St. Aloysius, Clonakilty.	St. Coleman's, Queenstown, co. Cork.	Our Lady of Mercy, Kinsale, co. Cork.	Dancsfort, Upton, co. Cork.	Mallow, co. Cork.	Passage West, co. Cork.	Baltimore, co. Cork.	St. Finbar's, Cork.	Greenmount, Cork.	St. Columba, Killybegs, co. Donegal.	Artane, co. Dublin.	Booterstown, co. Dublin.
	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	B.	G.	G.	G.	G.	G.	G.	B.	G.	B.	B.	G.	B.	B.	B.	G.
	25	50	61	69	111	46	114	200	60	50	150	172	198	100	800	80
	11	1	8	1	8	1	1	–	10	9	3	3	5	4	7	8
	–	–	–	–	–	5	2	5	5	9	1	4	3	–	57	1
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	36	51	69	70	119	52	117	205	75	68	154	179	206	104	864	89
	16	5	19	14	8	10	15	13	5	16	8	14	16	6	126	8
	1	–	–	–	–	–	–	30	–	–	18	–	12	18	15	–
	2	1	3	4	–	–	1	–	–	1	–	2	–	–	1	–
	19	6	22	18	8	10	16	43	5	17	26	16	28	24	142	8
	3	13	7	16	14	12	25	43	8	23	29	30	28	19	154	11
	42	42	73	66	108	46	97	200	60	50	150	162	99	100	800	80
	10	2	11	6	5	–	6	2	2	4	1	2	4	7	3	4
	–	–	–	–	–	4	5	3	10	8	–	1	3	2	49	2
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	52	44	84	72	113	50	108	205	72	62	151	165	206	109	852	86
	82·6	45·4	66	67	109	46	103·9	199·3	60	50	149·98	168	200	100	798	80
	5·9	1·1	11	5	7·3	–	3·2	–	–	4	–	2	–	–	–	2·2
	–	–	–	–	–	–	–	1·9	2	–	2·28	–	3·2	6·3	5·3	4·4
	–	–	6	–	1	1	–	4·8	5	8	·09	1	–	–	·5	–
	38·5	46·7	83	72	117·3	47	107·1	206	67	62	152·35	171	203·2	106·3	801·8	86·6
	–	–	–	–	–	500	–	–	–	*270·0	–	–	–	–		150

* Boys and Girls.

7.—Industrial Schools.—Return of Admissions, Discharges,

—	Goldenbridge, Dublin.	Carriglea Park, co. Dublin.	St. Mary's, Lakelands, Sandymount, co. Dublin.	Meath, Blackrock, co. Dublin.	Merrion, co. Dublin.	St. Bridget's, Loughrea, co. Galway.	Ballinasloe, co. Galway.	Clifden, co. Galway.
	25	26	27	28	29	30	31	32
	G.	B.	G.	B.	G.	G.	G.	G.
Under Detention, 31st Dec., 1906:—								
In School (within number paid for under rules).	147	150	70	146	131	82	45	56
„ (in excess of number paid for, or under 6 years).	7	5	1	–	3	3	1	14
On Licence,	6	6	8	8	5	2	–	–
Absconded, Sentence unexpired,	–	–	–	–	–	–	–	–
Retained in School, Sentence expired,	1	–	2	1	–	1	–	–
Total,	161	161	81	155	139	88	47	70
Admitted by Commitment in 1907,	13	39	10	32	16	5	7	24
„ Transfer,	–	2	–	–	–	–	–	–
„ Re-committal,	–	–	–	–	–	–	–	–
Total,	13	41	10	32	16	5	7	24
Discharged, Transferred, or Died in 1907,	31	41	11	27	21	18	6	5
Under Detention, 31st December, 1907:—								
In School (within number paid for under rules).	139	150	70	149	121	71	47	73
„ (in excess of number paid for, under 6 years).	–	5	3	3	6	3	1	16
On Licence,	2	6	7	7	7	1	–	–
Absconded, Sentence unexpired,	–	–	–	–	–	–	–	–
Retained in School, Sentence expired,	2	–	–	1	–	–	–	–
Total,	143	161	80	160	134	75	48	89
AVERAGE NUMBER OF CHILDREN.								
(i.) Inmates under Orders of Detention and paid for by Treasury.	143	150	70	144·4	124	78	43	52·5
(ii.) Inmates under Orders of Detention but as yet not chargeable to the Treasury, being under 6 years of age.	3	3	2	3·3	3	3	2	13·2
(iii.) Inmates above the age of 6 years under Orders of Detention but as yet not chargeable to the Treasury, being in excess of the number limited by the rules of the School.	–	–	1	–	–	–	–	–
(iv.) Voluntary Inmates (Inmates not under Orders of Detention) supported by the Managers out of funds other than those received from the Treasury.	–	–	–	1	–	–	–	–
Total,	146	153	73	148·7	127	81	50	65·7
Average Number of Externs attending the School.	–	–	–	–	–	–	–	–

&c., during the Year ending 31st December, 1907—*continued.*

	Letterfack, co. Galway.	Oughterard, co. Galway.	St. Anne's, Galway.	Salthill, Galway.	St. Joseph's Home, Killarney.		St. Joseph's, Tralee.	Pembroke Almshouse, Tralee.	Kilkenny Male.	Kilkenny Female.	St. John's, Parsonstown, King's Co.	St. George's, Limerick.	St. Vincent's, Limerick	St. Joseph's, Limerick.	Our Lady of Succour, N. T. Forbes.
	33	34	35	36	37		38	39	40	41	42	43	44	45	46
	B.	G.	G.	B	B.	G.	B.	G.	B.	G.	G.	G.	G.	B.	G.
	150	32	76	200	24	78	100	70	162	100	65	100	130	170	115
	6	1	3	2	5	4	1	4	20	14	5	12	11	3	7
	4	–	2	7	6	10	10	10	8	2	1	2	7	11	4
	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	161	33	81	209	35	92	111	84	190	116	71	114	148	184	126
	23	5	6	41	7	21	13	11	20	7	8	17	21	24	25
	3	–	–	8	–	–	6	–	–	–	–	–	–	5	–
	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–
	26	5	6	49	7	21	19	11	20	9	8	17	21	29	25
	21	3	9	47	10	13	18	14	35	15	11	12	23	34	17
	150	32	72	200	25	78	100	70	157	100	60	100	130	170	123
	6	3	3	4	2	13	–	3	11	8	6	14	9	2	8
	7	–	3	6	5	9	11	8	7	2	2	5	7	6	3
	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–
	2	–	–	1	–	–	1	–	–	–	–	–	–	–	–
	166	35	78	211	32	100	112	81	175	110	68	119	146	179	134
	150	33	72·8	200	23	72	100	69·6	160	100	62·7	100	130	169·9	123·7
	1	3	2·6	–	2	3	–	2·16	10	6	4·6	5	16·7	–	7·9
	5	–	–	4	1	5	–	·416	–	2	–	9	7·2	1·8	–
	–	–	·7	1	–	–	–	–	–	6	–	6	42	1	–
	156	36	76·1	205	26	80	100	72·249	170	114	67·3	120	195·9	172·7	131·6
	–	–		–		–	–	266·7	–	–	–	–	117·3	–	66·4

7.—Industrial Schools.—Return of Admissions, Discharges,

—	House of Charity, Drogheda, co. Louth.	Dundalk, co. Louth.	St. Columba's, Westport, co. Mayo.	Ballaghaderreen, co. Mayo.	St. Martha's, Monaghan.	St. Monica's, Roscommon.	Summerhill, Athlone, co. Roscommon.	Benada, Tubbercurry, co. Sligo.
	47	48	49	50	51	52	53	54
	B.	G.	G.	G.	G.	G.	G.	G.
Under Detention, 31st Dec., 1906:—								
In School (within number paid for under rules).	92	80	86	70	88	43	103	46
„ (in excess of number paid for, or under 6 years).	23	6	7	4	4	–	1	3
On Licence, ...	4	–	1	1	2	2	4	6
Absconded, Sentence unexpired, . .	–	–	–	–	–	–	–	–
Retained in School, Sentence expired,	–	–	–	–	–	–	–	–
Total, ...	122	86	94	75	94	45	108	55
Admitted by Commitment in 1907. .	23	10	13	10	11	6	8	9
„ Transfer, ...	–	–	–	–	–	–	–	–
„ Re-committal, . . .	3	1	–	–	–	3	–	–
Total, ...	26	11	13	10	11	9	8	9
Discharged, Transferred, or Died in 1907,	34	13	10	9	12	9	17	7
Under Detention 31st December, 1907:—								
In School (within number paid for under rules).	90	76	90	67	88	43	95	50
„ (in excess of number paid for, under 6 years).	20	8	7	6	3	2	2	4
On Licence, ...	4	–	–	3	2	–	2	3
Absconded, Sentence unexpired, . .	–	–	–	–	–	–	–	–
Retained in School, Sentence expired, .	–	–	–	–	–	–	–	–
Total, ...	114	84	97	76	93	45	99	57
Average Number of Children.								
(i.) Inmates under Orders of Detention and paid for by Treasury.	91	76	85	68·1	88	43	98·3	46
(ii.) Inmates under Orders of Detention but as yet not chargeable to the Treasury, being under 6 years of age.	24	8	6	4	2	2	2	3
(iii.) Inmates above the age of 6 years under Orders of Detention but as yet not chargeable to the Treasury, being in excess of the number limited by the rules of the School.	1	–	–	–	1	–	–	–
(iv.) Voluntary Inmates (Inmates not under Orders of Detention) supported by the Managers out of funds other than those received from the Treasury,	–	12	1	–	–	25	71	–
Total, ...	116	96	92	72·1	91	70	171·3	49
Average Number of Externs attending the School.	–	–	375·3	–	330	273·5	57	120

&c., during the Year ending 31st December, 1907—*continued.*

St. Laurence, Sligo.	Clonmel, co. Tipperary.	St. Augustine's, Templemore, co. Tipperary.	St. Francis', Cashel, co. Tipperary.	St. Louis', Thurles, co. Tipperary.	Tipperary.	St. Catherine's, Strabane, co. Tyrone.	Cappoquin, co. Waterford.	St. Dominick's, Waterford.	Mount Carmel, Moate, co. Westmeath.	St. Aidan's, New Ross, co. Wexford.	St. Michael's, Wexford.	Meath, Bray, co. Wicklow.	St. Kyan's, Rathdrum, co. Wicklow.
55	56	57	58	59	60	61	62	63	64	65	66	67	68
G.	B.	G.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	B.
112	149	60	103	45	64	89	51	160	53	67	106	68	50
7	–	1	2	2	10	11	8	17	3	6	11	1	4
1	3	1	–	–	5	–	1	3	1	1	8	2	4
–	1	–	–	–	–	–	–	–	–	–	–	–	–
–	1	–	–	–	–	1	–	–	1	–	–	1	–
120	154	62	105	47	79	101	60	180	58	74	125	62	58
15	17	8	11	10	8	11	9	19	5	2	26	16	23
–	12	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	2	–	–	–	–	–	–	–	–	–	–
15	29	8	13	10	8	11	9	19	5	2	26	16	23
21	36	8	14	10	6	17	14	30	6	13	17	15	17
103	145	58	98	45	64	90	51	160	53	61	106	57	50
10	–	3	3	2	13	3	4	8	3	2	22	5	13
–	2	1	3	–	4	2	–	1	1	–	6	1	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–
1	–	–	–	–	–	–	–	–	–	–	–	–	–
114	147	62	104	47	81	95	55	169	57	63	134	63	64
108·7	148·7	56·6	102·1	45	64	90·2	51	160	53	61	106	60·16	50
8·2	–	2·7	3	2	1·7	2	4	7	–	2	9	3·5	4
–	–	–	–	–	9·3	–	1	1	1·8	–	5	–	–
–	2	–	–	–	1·1	–	1	2	1	1	8	1·25	5
116·9	150·7	59·3	105·1	47	76·1	98·2	57	170	55·8	64	128	64·91	59
–	–	170	328	–	–	385·7	–	–	154·1	–	102	–	–

8.—Industrial Schools.—Summary of Admissions, Discharges, &c., for the Year ending 31st December, 1907.

—	Total.		Gross Total.
	Boys.	Girls.	
Under Detention, 31st December, 1906—			
In School (within number paid for under Rules),	3,567	4,026	7,593
„ (in excess of number paid for, or under 6 years of age).	184	260	444
On Licence,	170	146	316
Absconded, Sentence unexpired	3	1	4
Retained in School, Sentence expired,	3	12	15
Total,	3,927	4,445	8,372
Admitted in 1907,	619	600	1,219
„ by Transfer,	130	24	154
„ by Re-committal,	7	19	26
Total,	756	643	1,399
Discharged, Transferred, or Died in 1907,	780	696	1,476
Under Detention, 31st December, 1907—			
In School (within number paid for under Rules),	3,578	3,955	7,533
„ (in excess of number paid for, or under 6 years).	161	291	452
On Licence,	156	138	294
Absconded, Sentence unexpired,	2	1	3
Retained in School, Sentence expired,	6	7	13
Total,	3,903	4,392	8,295
State of Instruction on Admission—			
Neither Read nor Write,	361	371	732
Read, or Read and Write imperfectly,	249	202	451
Read and Write well,	29	27	56
Superior Instruction,	–	–	–
Total,	619	600	1,219
Age at Admission—			
Under 6 years,	66	165	231
From 6 to 8,	117	124	241
„ 8 to 10,	148	113	261
„ 10 to 12,	191	127	318
„ 12 to 14,	97	71	168
Total,	619	600	1,219
Mode of Discharge—			
To employment or service,	390	419	809
Returned to Friends,	178	157	335
Emigrated,	18	13	31
Sent to Sea,	5	–	5
Enlisted,	1	–	1
Specially discharged,	18	12	30
Committed to Reformatory,	–	1	1
Transferred,	130	24	154
Died,	22	31	53
Absconders discharged by expiration of sentence,	2	–	2
Discharged on account of insufficient grounds for detention.	16	39	55
Total,	780	696	1,476

9.—Industrial Schools.—Return of Particulars of Admissions and Discharges, during the Year 1907.

—	Balmoral.	Hampton House, Belfast.	St. Patrick's, Milltown, Belfast.	Nazareth Lodge.	St. Patrick's, Crumlin Road, Belfast.	Sacred Heart.	Shamrock Lodge, Belfast.	Middletown, co. Armagh.	Lurgan, for Boys.	House of Providence.	St. Joseph's, Cavan.	Ennis, co. Clare.	St. Aloysius', Clonakilty.	St. Coleman's, Queenstown.	Our Lady of Mercy, Kinsale.	Upton, Cork.	Mallow.	Passage West.	Baltimore, co. Cork.	St. Finbar's, Sunday's Well, Cork.	Greenmount, Cork.	St. Columba, Killybegs.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	B.	G.	B.	B.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	G.	B.	G.	B.	B	G.	B.	B.
State of Instruction on Admission—																						
Neither Read nor Write,	36	17	17	5	1	24	9	13	8	3	12	9	5	5	12	3	2	16	3	6	4	3
Read or Write imperfectly,	42	5	18	25	3	6	13	2	7	2	7	5	3	5	3	9	3	–	5	8	12	–
Read and Write well,	–	4	4	–	3	1	7	–	1	–	–	–	–	–	–	1	–	–	–	–	–	3
Superior Instruction,	–	–	–	–	–	–	–	–	–	..	–	–	–	–	–	–	–	–	–	–	..	–
Total,	78	26	39	30	7	31	29	15	16	5	19	14	8	10	15	13	5	16	8	14	16	6
Age at Admission—																						
Under 6 years,	4	4	–	5	–	12	6	3	10	2	10	6	1	1	6	–	–	7	–	2	–	–
From 6 to 8,	15	6	2	11	–	7	6	4	4	1	5	–	2	1	5	–	2	6	–	2	1	–
,, 8 to 10,	16	7	9	12	–	5	5	4	2	–	1	2	1	2	3	3	2	3	1	2	3	–
,, 10 to 12,	24	5	18	2	2	6	10	1	–	1	2	4	3	2	1	8	1	–	4	6	6	2
,, 12 to 14,	19	4	10	–	5	1	2	3	–	1	1	2	1	4	–	2	–	–	3	2	6	4
Total,	78	26	39	30	7	31	29	15	16	5	19	14	8	10	15	13	5	16	8	14	16	6
Mode of Discharge—																						
To Employment or Service.	44	15	24	–	16	1	10	12	–	10	2	5	7	9	9	16	4	–	15	17	14	13
Returned to Friends,	21	4	13	6	14	1	8	–	–	2	2	4	4	1	13	22	1	4	8	7	13	6
Emigrated,	2	–	1	–	–	–	1	–	–	–	–	1	–	1	2	3	–	1	–	–	1	–
Sent to Sea,	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–
Enlisted,	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Specially discharged,	3	1	–	2	–	–	6	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–
Committed to Reformatory.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Transferred,	–	–	–	24	–	24	–	–	–	–	–	–	–	–	–	1	–	16	–	–	–	–
Died,	3	–	2	1	1	2	1	–	1	–	–	1	3	1	–	1	1	–	–	3	–	–
Absconders discharged by expiration of sentence.	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Discharged on account of insufficient grounds for Detention.	–	–	–	–	–	–	–	–	2	1	3	4	–	–	1	–	2	2	–	2	–	–
Total,	74	20	40	33	31	28	26	12	3	13	7	16	14	12	25	43	8	23	29	30	28	19

9.—Industrial Schools.—Return of Particulars of Admissions

—	Artane, co. Dublin.		Booterstown, co. Dublin.		Golden Bridge.		Carrigles Park.		St. Mary's, Lakelands, Sandymount, co. Dublin.		Meath, Blackrock, co. Dublin.		Merrion, co. Dublin.		St. Bridget's, Loughrea.		Ballinasloe.		Clifden, co. Galway.		Letterfrack.		Oughterard, co. Galway.		St. Anne's, Galway.		Salt Hill, Galway.		St. Joseph's Home, Killarney.		St. Joseph's, Tralee.		Pembroke Almshouse, Tralee.		Kilkenny Male.		Kilkenny Female.		St. John's, Parsonstown.	
	23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42	
State of Instruction on Admission—	B.		G.		G.		B.		G.		B.		G.		G.		G.		G.		B.		G.		G.		B.		B.		G.		B.		G.		B.		G.	
Neither Read nor Write,	79		6		9		30		8		11		11		5		3		17		18		5		4		25		7		4		8		7		17		7		5	
Read or Write imperfectly.	30		1		4		9		2		19		4		–		4		7		5		–		1		15		–		17		5		4		3		–		3	
Read and Write well,	17		1		–		–		–		2		1		–		–		–		–		–		1		1		–		–		–		–		–		–		–	
Superior Instruction,	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Total, . .	126		8		13		39		10		32		16		5		7		24		23		5		6		41		7		21		13		11		20		7		8	
Age at Admission—																																									
Under 6 years, .	–		3		–		1		2		3		5		3		1		8		2		2		2		–		1		1		2		1		6		3		4	
From 6 to 8, . .	12		4		3		5		2		2		3		2		2		6		8		1		2		2		6		3		1		4		10		1		1	
„ 8 to 10, . .	36		1		1		12		5		7		1		–		–		4		4		1		1		15		–		7		4		2		4		2		1	
„ 10 to 12, . .	49		–		7		16		1		14		3		–		2		5		7		1		1		19		–		6		4		2		–		1		1	
„ 12 to 14, . .	29		–		2		5		–		5		4		–		2		1		2		–		–		5		–		4		2		2		–		–		1	
Total, . .	126		8		13		39		10		32		16		5		7		24		23		5		6		41		7		21		13		11		20		7		8	
Mode of Discharge—																																									
To Employment or Service.	106		9		14		31		6		22		16		15		4		4		12		2		8		38		–		6		12		5		–		11		5	
Returned to Friends, .	37		2		17		8		3		5		4		3		–		1		3		1		1		2		1		3		5		6		3		1		4	
Emigrated, . .	–		–		–		–		–		–		–		–		2		–		2		–		–		4		–		1		–		1		–		–		1	
Sent to Sea, . .	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Enlisted, . . .	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Specially discharged,	4		–		–		1		–		–		1		–		–		–		–		–		–		–		3		–		1		–		1		–		–	
Committed to Reformatory.	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Transferred, . .	–		–		–		–		–		–		–		–		–		–		–		–		–		–		5		–		–		29		–		–		–	
Died, . . .	3		–		–		1		2		–		–		–		–		4		–		–		–		2		–		2		–		1		1		1		–	
Absconders discharged by expiration of sentence.	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Discharged on account of insufficient grounds for detention.	4		–		–		–		–		–		–		–		–		–		–		–		–		1		1		1		–		2		1		2		–	
Total, . .	154		11		31		41		11		27		21		18		6		5		21		3		9		47		10		13		18		14		35		15		11	

and DISCHARGES during the Year 1907—*continued.*

St. George's, Limerick.	St. Vincent's, Limerick.	Limerick Male.	Our Lady of Succour, Newtownforbes.	House of Charity, Drogheda.	Dundalk.	St. Columba, Westport.	Ballaghaderreen.	St. Martha's, Monaghan.	St. Monica's, Roscommon.	Summerhill Girls, Athlone.	Benada, Tubbercurry.	St. Laurence, Sligo.	Clonmel.	St. Augustine's, Templemore.	St. Francis', Cashel.	St. Louis', Thurles.	Tipperary.	St. Catherine's, Strabane.	Cappoquin, Waterford.	St. Dominick's, Waterford.	Mount Carmel, Moate.	St. Aidan's, New Ross.	St. Michael's, Wexford.	Meath, Bray.	St. Kyran's, Rathdrum.
43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
G.	G.	B.	G.	B.	G.	G.	G.	G.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	B.
13	10	17	10	23	8	10	7	7	2	8	7	11	7	3	3	4	4	8	3	12	2	2	21	10	21
4	11	7	13	–	1	2	3	4	4	–	2	4	10	4	8	6	2	3	6	7	3	–	5	4	2
–	–	–	2	–	1	1	–	–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	–	2	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
17	21	24	25	23	10	13	10	11	6	8	9	15	17	8	11	10	8	11	9	19	5	2	26	16	23
4	6	–	6	10	5	6	7	3	2	2	3	5	–	3	2	2	3	2	4	4	–	–	8	4	11
2	5	6	6	10	2	3	–	3	1	1	–	5	3	3	1	2	1	2	4	1	1	1	5	4	8
7	5	6	6	2	–	2	1	1	2	3	–	3	5	–	3	2	1	3	1	2	1	1	7	3	3
3	3	8	3	1	2	1	2	3	1	1	5	1	8	–	3	2	–	3	–	8	2	–	4	4	1
1	2	4	4	–	1	1	–	1	–	1	1	1	1	2	2	2	3	1	–	4	1	–	2	1	–
17	21	24	25	23	10	13	10	11	6	8	9	15	17	8	11	10	8	11	9	19	5	2	26	16	23
11	15	20	8	–	11	8	3	10	2	10	2	14	23	5	8	9	3	13	–	22	3	12	15	13	–
–	1	9	6	–	1	2	1	–	4	7	4	3	8	3	4	–	2	2	2	3	3	1	2	1	2
–	–	2	–	–	–	–	2	–	–	–	–	–	2	–	–	–	1	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
1	–	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
–	–	–	–	31	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–	–	–	12
–	2	–	1	–	–	–	1	2	–	–	1	1	1	–	–	–	–	2	–	2	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
–	5	1	1	3	1	–	2	–	3	–	–	3	–	–	2	1	–	–	–	3	–	–	–	–	1
12	23	34	17	34	13	10	9	12	9	17	7	21	36	8	14	10	6	17	14	30	6	13	17	15	17

10.—Industrial Schools.—Return showing the Number of Admissions, Discharges, and Modes of Discharges, from 1869 to 1907.

—	Total		Gross Total.
	Boys.	Girls.	
Admissions.			
1869,	65	184	249
1870,	258	1,171	1,429
1871,	499	633	1,132
1872,	738	886	1,624
1873,	487	657	1,144
1874,	496	561	1,057
1875,	490	513	1,003
1876,	367	495	862
1877,	349	596	945
1878,	366	499	865
1879,	553	577	1,130
1880,	774	830	1,604
1881,	524	733	1,257
1882,	611	752	1,363
1883,	483	703	1,186
1884,	601	703	1,304
1885,	963	755	1,718
1886,	733	906	1,639
1887,	862	685	1,547
1888,	666	771	1,437
1889,	935	711	1,646
1890,	752	789	1,541
1891,	651	723	1,374
1892,	881	704	1,585
1893,	750	702	1,452
1894,	751	675	1,426
1895,	752	815	1,567
1896,	837	739	1,576
1897,	778	781	1,559
1898,	747	663	1,410
1899,	806	487	1,293
1900,	602	510	1,112
1901,	822	748	1,570
1902,	760	721	1,481
1903,	789	827	1,616
1904,	772	764	1,536
1905,	766	687	1,453
1906,	784	713	1,497
1907,	756	643	1,399
Total,	25,576	27,012	52,588

—	Total.		Gross Total.
	Boys.	Girls.	
Discharges.			
To employment or service,	9,572	12,489	22,061
To friends,	4,424	5,559	9,983
Emigrated,	554	1,349	1,903
Sent to sea,	485	–	485
Enlisted,	214	–	214
Discharged as diseased,	441	263	704
Committed to reformatories,	165	64	229
Transferred,	4,479	853	5,332
Died,	954	1,531	2,485
Absconded—sentence expired,	110	12	122
Discharged — committal illegal,	275	500	775
Total,	21,673	22,620	44,293
Under detention, 31st Dec., 1907,	3,903	4,392	8,295
Viz.:—			
In school,	3,739	4,246	7,985
On licence,	156	138	294
Absconded — sentence unexpired,	2	1	3
Retained in school—sentence expired,	6	7	13

11.—INDUSTRIAL SCHOOLS.—Discharges for the years 1904, 1905, and 1906, showing the number Doing Well, Convicted of Crime, &c., from their Discharge to 31st December, 1907.

—	Balmoral, Belfast.		Hampton House, Belfast.		St. Patrick's, Millstown, Belfast.		Nazareth Lodge, Belfast.		St. Patrick's, Crumlin road, Belfast.		Abbeyville, Whiteabbey, Belfast.		Shamrock Lodge, Belfast.		Middletown.		Lurgan.		St. Joseph's, Cavan.		Ennis.		St. Aloysius, Clonakilty.		St. Coleman's, Queenstown.	
MODE OF DISCHARGE—	B.	G.	B.	G.	B.	G.	B.	G.	G.	G.	G.	G.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	G.	G.	G.	G.
To Employment, .	134	56	51	-	49	5	43	28	12	–	18	23	36	13												
Returned to Friends, .	35	16	35	1	37	7	10	4	4	–	1	11	13	6												
Emigrated, . .	1	–	–	–	–	–	–	–	–	–	–	3	–	–												
Sent to Sea, . .	2	–	–	–	–	–	–	–	–	–	–	–	–	–												
Enlisted, . . .	3	–	–	–	–	–	–	–	–	–	–	–	–	–												
Specially Discharged,	1	1	1	–	–	–	5	–	–	–	–	–	3	–												
Absconded and not Recovered, . .	1	–	–	–	–	–	–	–	–	–	–	–	–	–												
Total, .	177	73	87	1	86	12	58	32	16	–	19	37	52	19												
SUBSEQUENT CHARACTER—																										
Since Dead, . .	1	3	1	–	–	–	3	–	–	–	–	–	2	1												
Doing well, . .	145	69	83	1	86	12	54	32	16	–	19	37	44	18												
Doubtful, . . .	12	1	1	–	–	–	–	–	–	–	–	–	2	–												
Convicted of Crime, .	3	–	1	–	–	–	–	–	–	–	–	–	–	–												
Unknown, . . .	16	–	1	–	–	–	1	–	–	–	–	–	4	–												
Total, . .	177	73	87	1	86	12	58	32	16	–	19	37	52	19												

—	Our Lady of Mercy, Kinsale.		Dunscourt, Upton, Cork.		Mallow.		Passage West.		Baltimore.		St. Finbar's, Sunday's Well, Cork.		Greenmount, Cork.		Killybegs, Donegal.		Artane, Co. Dublin.		Booterstown, Co. Dublin.		Golden Bridge.		Carriglea Park.		St. Mary's, Lakelands, Sandymount, Co. Dublin.	
MODE OF DISCHARGE—	G.		B.	G.	B.		B.		B.		G.		B.		B.		B.		G.		G.		B.		G.	
To Employment, . .	24		56	16	–		54		63		46		33		342		33		39		71		24			
Returned to Friends, .	20		44	4	–		13		9		73		12		135		11		46		13		5			
Emigrated, . . .	2		2	1	1		–		3		2		2		1		–		–		–		–			
Sent to Sea, . . .	–		–	–	–		12		–		–		–		1		–		–		–		–			
Enlisted, . . .	–		–	–	–		1		–		–		–		–		–		–		–		–			
Specially Discharged, .	3		1	–	1		5		1		1		1		10		–		–		1		–			
Absconded and not Recovered, . . .	–		–	–	–		–		–		–		–		2		–				–		–			
Total, . .	49		103	21	2		85		76		122		50		489		44		85		85		29			
SUBSEQUENT CHARACTER—																										
Since Dead, . . .	3		2	1	1		2		2		2		1		19		2		3		1		2			
Doing well, . . .	44		94	20	–		70		74		110		42		438		39		49		83		27			
Doubtful, . . .	1		2	–	1		1		–		6		6		13		–		–		–		–			
Convicted of Crime, .	–		–	–	–		–		–		–		–		2		–		–		–		–			
Unknown, . . .	1		5	–	–		12		–		4		1		17		3		33		1		–			
Total, . .	49		103	21	2		85		76		122		50		489		44		85		85		29			

11.—Industrial Schools.—Discharges for the years 1904, 1905, and 1906, to 31st December,

—	"Mount," Blackrock Co. Dublin.		Merrion, Co. Dublin.		St. Bridget's, Loughrea.	Ballinasloe.	Clifden, Co. Galway.		Lottorfrack.	Oughterard, Co. Galway.	St Anne's, Galway.	Salt Hill, Galway.	St. Joseph's Home, Killarney.	
Mode of Discharge—	B.		G.		G.	G.	G.		B.	G.	G.	B.	B.	G.
To Employment,	47		26		21	15	24		55	9	27	90	–	12
Returned to Friends,	27		30		7	17	10		20	12	2	9	–	11
Emigrated,	1		1		–	4	4		2	–	3	3	–	4
Sent to Sea,	1		–		–	–	–		–	–	–	–	–	–
Enlisted,	5		–		–	–	–		–	–	–	2	–	–
Specially Discharged,	–		–		1	–	–		–	–	–	–	–	–
Absconded and not Recovered,	–		–		–	–	–		–	–	–	–	–	–
Total,	81		57		29	36	38		77	21	32	104	–	27
Subsequent Character—														
Since Dead,	1		5		–	–	1		1	–	3	4	–	–
Doing well,	70		52		25	36	35		67	21	27	94	–	20
Doubtful,	7		–		4	–	–		6	–	–	3	–	1
Convicted of Crime,	–		–		–	–	–		–	–	–	1	–	–
Unknown,	3		–		–	–	2		3	–	2	2	–	6
Total,	81		57		29	36	38		77	21	32	104	–	27

—	Ballaghaderreen.	St. Martha's, Monaghan.	St. Monica's, Roscommon.	Summerhill, Athlone	Bonada, Tubbercurry.	S. Laurence, Sligo.	Clonmel.	St. Augustine's, Templemore.	St. Francis', Cashel.	St. Louis, Thurles.	Tipperary	St. Catherine's, Stradbane.	Cappoquin, Waterford.
Mode of Discharge—	G	G.	G.	G.	G.	G.	B.	G.	G.	G.	G.	G.	B.
To Employment,	19	27	19	31	14	39	27	22	35	18	15	20	–
Returned to Friends,	7	4	1	23	11	9	40	5	7	1	6	11	8
Emigrated,	7	–	–	1	–	–	2	1	–	1	2	4	–
Sent to Sea,	–	–	–	–	–	–	–	–	–	–	–	–	–
Enlisted,	–	–	–	–	–	–	–	–	–	–	–	–	–
Specially Discharged,	–	–	–	1	2	–	–	–	3	1	–	1	–
Absconded and not Recovered,	–	–	–	–	–	3	1	–	–	–	–	–	–
Total,	33	31	20	56	27	51	70	28	45	21	23	36	8
Subsequent Character—													
Since Dead,	1	–	2	–	1	–	3	–	–	1	–	2	–
Doing well,	32	31	18	51	26	48	62	27	45	20	23	34	4
Doubtful,	–	–	–	1	–	–	–	–	–	–	–	–	–
Convicted of Crime,	–	–	–	–	–	–	–	–	–	–	–	–	–
Unknown,	–	–	–	4	–	3	5	1	–	–	–	–	4
Total,	33	31	20	56	27	51	70	28	45	21	23	36	8

showing the number Doing Well, Convicted of Crime, &c., from their Discharge 1907—*continued.*

St. Joseph's, Tralee.		Pembroke Almshouse, Tralee.		Kilkenny Male.		Kilkenny Female.		St. John's, Parsonstown.		St. George's, Limerick.		St. Vincent's, Limerick.		Limerick Male.		Our Lady of Succour, Newtownforbes.		House of Charity, Drogheda.		Dundalk.		St. Columba, Westport.		——
B.	G.	B.	G.	B.	G.	G.		G.		G.		G		B	G.	B.	G.	B.	G.	G.				
46	23	–	40	19	40	48	63	38	–	24	24	Mode of Discharge—												
5	3	11	9	11	4	11	24	20	9	8	13	To Employment.												
4	–	–	–	1	–	–	4	–	–	2	4	Returned to Friends.												
–	–	–	–	–	–	–	–	–	–	–	–	Emigrated.												
1	–	1	–	–	–	–	–	–	–	–	–	Sent to Sea.												
1	1	1	1	–	–	1	–	–	1	–	–	Enlisted.												
3	–	–	–	–	–	–	–	–	–	–	–	Specially Discharged.												
												Absconded and not Recovered.												
60	27	13	50	31	44	60	91	58	10	34	41	Total.												
												Subsequent Character—												
–	2	–	1	1	–	–	3	1	–	1	1	Since Dead.												
51	25	9	48	30	44	60	86	53	7	33	40	Doing well.												
1	–	–	–	–	–	–	–	–	–	–	–	Doubtful.												
–	–	–	–	–	–	–	–	–	–	–	–	Convicted of Crime.												
8	–	4	1	–	–	–	2	4	3	–	–	Unknown.												
60	27	13	50	31	44	60	91	58	10	34	41	Total.												

St. Dominick's, Waterford.		Mount Carmel, Moate.		St. Aidan's, New Ross.		St. Michael's, Wexford.		Meath, Bray.		St. Kyran's, Rathdrum.		Total.			——
G.		G.		G.		G.		G.		B.		Boys.	Girls.	Gross Total.	
63		18		22		37		29		–		1,115	1,300	2,415	Mode of Discharge— To Employment.
10		3		4		9		14		3		517	497	1,014	Returned to Friends.
1		1		2		–		1		–		25	53	78	Emigrated.
–		–		–		–		–		–		16	–	16	Sent to Sea.
–		–		–		–		–		–		13	–	13	Enlisted.
1		–		–		–		1		–		25	27	52	Specially Discharged.
–		–		–		–		–		–		7	3	10	Absconded and not Recovered.
75		22		28		46		45		3		1,718	1,980	3,598	Total.
															Subsequent Character—
1		–		–		–		1		–		42	47	89	Since Dead.
74		20		28		46		36		3		1,519	1,748	3,267	Doing well.
–		1		–		–		5		–		59	16	75	Doubtful.
–		–		–		–		–		–		7	–	7	Convicted of Crime.
–		1		–		–		3		–		91	69	160	Unknown.
75		22		28		46		45		3		1,718	1,880	3,598	Total.

12.—INDUSTRIAL SCHOOLS.—RETURN of RECEIPTS in,

RECEIPTS AND EXPENDITURE.	Balmoral, BELFAST. Boys.	Hampton House, BELFAST. Girls.	St. Patrick's, Milltown, BELFAST. Boys.	Nazareth Lodge, BELFAST. Boys.	St. Patrick's, Crumlin-road, BELFAST. Girls.
	1	2.	3.	4.	5.
RECEIPTS.	£	£	£	£	£
Treasury Allowances,	5,214	2,034	1,955	652	1,172
Subscriptions, Legacies, Donations, &c.	123	16	–	–	–
Payments from County and Borough Rates.	2,675	1,093	1,034	556	619
Payments for Voluntary Inmates.	34	–	–	–	72
Hire of Labour,	–	–	–	–	–
Parental Money,	1	2	4	2	–
Sundries,	45	36	80	–	–
Total Receipts,	8,092	3,181	3,073	1,210	1,863
EXPENDITURE.					
Ordinary Charges.					
Officers' Pay (Salaries & House Wages).	1,600	437	320	96	163
Officers' Rations,	250	275	153	132	75
Food for Inmates,	2,381	897	1,176	682	740
Clothing of Inmates,	1,435	381	308	130	232
Washing, Fuel, and Light,	669	470	164	89	137
Repairs, Rates, and Taxes,	483	192	246	16	74
Furniture and House Sundries,	326	135	169	23	115
Printing and Office Expenses,	148	47	21	6	31
Travelling and Police Charges,	29	11	4	–	12
Medical Expenses, Funerals, &c.,	235	70	32	28	59
Sundries, Rewards, &c.,	238	153	69	9	68
Total Ordinary Charges,	7,794	3,068	2,662	1,211	1,706
Extra Charges.					
Rent of School Premises,	190	135	50	–	80
Interest,	239	–	14	–	–
Disposal, Home,	205	61	144	–	75
,, Emigration,	–	–	–	–	–
Building and Land,	187	50	–	–	–
Total Extra Charges,	821	246	208	–	155
Total Expenditure,	8,615	3,314	2,870	1,211	1,861

and EXPENDITURE for, the Year 1907.

Sacred Heart, Abbeyville, Whiteabbey, BELFAST.	Shamrock Lodge, BELFAST.	Middletown, ARMAGH.	LURGAN.	LURGAN.	St. Joseph's, CAVAN.	ENNIS.	St. Aloysius', CLONAKILTY.
Girls.	Girls.	Girls.	Boys.	Girls.	Girls.	Girls.	Girls.
6.	7.	8.	9.	10.	11.	12.	13.
£	£	£	£	£	£	£	£
1,549	1,531	636	374	622	820	898	1,434
–	10	–	80	–	–	–	–
833	810	283	202	279	288	370	543
105	3	–	–	–	108	–	10
–	–	–	–	–	–	–	–
1	–	–	1	–	–	–	–
–	8	–	–	–	–	–	–
2,488	2,362	919	657	901	1,216	1,268	1,987
440	311	60	28	40	97	75	126
90	195	–	55	65	76	68	140
893	616	396	225	323	655	551	938
290	407	124	109	138	149	100	180
185	428	116	55	72	146	98	133
28	114	62	11	65	68	41	176
164	68	51	7	5	70	30	63
7	46	17	3	4	9	7	19
6	19	–	–	–	1	–	15
52	35	7	31	12	27	16	24
55	19	7	7	3	9	5	12
2,210	2,258	840	531	727	1,307	991	1,826
20	155	–	42	–	50	42	–
266	–	50	59	76	–	250	180
–	88	48	–	24	16	28	28
–	–	–	–	–	–	5	–
400	300	7	1,166	–	–	–	–
686	543	98	1,267	100	66	325	208
2,896	2,801	938	1,798	827	1,373	1,316	2,034

12.—Industrial Schools.—Return of Receipts in,

Receipts and Expenditure.	St. Coleman's, Queenstown. Girls.	Our Lady of Mercy, Kinsale. Girls.	Danesfort Upton, Co. Cork. Boys.	Mallow. Girls.	Passage West. Boys.
	14.	15.	16.	17.	18.
Receipts.	£	£	£	£	£
Treasury Allowances,	600	1,409	2,595	775	654
Subscriptions, Legacies, Donations &c.	5	45	–	–	118
Payments from County and Borough Rates.	238	497	1,073	357	287
Payments for Voluntary Inmates.	–	40	45	–	76
Hire of Labour,	–	–	–	–	–
Parental Money,	–	–	–	1	3
Sundries,	–	–	8	6	–
Total Receipts,	843	1,991	3,721	1,139	1,138
Expenditure.					
Ordinary Charges.					
Officers' Pay (Salaries & House Wages).	97	81	407	63	42
Officers' Rations,	27	144	280	52	60
Food for Inmates,	403	812	1,384	515	602
Clothing of Inmates,	72	191	552	160	93
Washing, Fuel, and Light,	65	152	620	135	99
Repairs, Rates, and Taxes,	33	123	115	57	41
Furniture and House Sundries,	11	16	224	61	22
Printing and Office Expenses,	5	19	30	5	13
Travelling and Police Charges,	3	3	3	1	2
Medical Expenses, Funerals, &c.,	24	34	83	15	25
Sundries, Rewards, &c.,	6	77	22	15	16
Total Ordinary Charges,	746	1,652	3,720	1,079	1,015
Extra Charges.					
Rent of School Premises,	90	24	–	–	25
Interest,	–	300	87	110	75
Disposal, Home,	13	98	95	35	15
,, Emigration,	–	–	8	–	–
Building and Land,	–	–	193	–	15
Total Extra Charges,	103	422	383	145	130
Total Expenditure,	849	2,074	4,103	1,224	1,145

and EXPENDITURE for, the Year 1907—*continued.*

Baltimore, Cork.	St. Finbar's, Sunday's Well, Cork.	Greenmount, Cork.	Killybegs, Donegal.	Artane, Co. Dublin.	Booterstown, Co. Dublin.	Golden Bridge, Co. Dublin.	Carriglea Park Industrial School, Co. Dublin.
Boys.	Girls.	Boys.	Boys.	Boys.	Girls.	Girls.	Boys.
19.	20.	21.	22.	23.	24.	25.	26.
£	£	£	£	£	£	£	£
1,950	2,222	2,605	1,304	10,406	1,043	1,887	1,954
–	15	184	5	671	–	29	38
780	741	1,047	670	4,619	427	748	827
–	13	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	1	1	–	–	–	–
–	118	10	–	163	20	–	47
2,730	3,109	3,847	1,980	15,859	1,490	2,664	2,866
281	330	499	613	3,271	51	235	620
105	255	213	104	–	63	159	78
1,039	1,416	1,621	633	5,854	799	985	1,006
443	347	683	361	2,064	148	253	312
167	275	292	117	1,195	176	205	165
129	123	206	40	705	78	137	55
45	184	159	63	357	22	147	72
16	20	58	23	199	6	30	48
–	4	12	4	72	4	14	5
30	111	48	24	278	20	50	80
44	24	71	–	397	16	86	139
2,299	3,089	3,862	1,982	14,392	1,383	2,301	2,580
43	87	25	4	150	68	214	100
–	–	166	42	918	–	278	253
82	129	97	21	260	50	99	68
–	–	5	–	–	–	–	–
141	–	246	¢	1,021	–	–	–
266	216	539	67	2,349	118	591	421
2,565	3,315	4,401	2,049	16,741	1,501	2,892	3,001

12.—INDUSTRIAL SCHOOLS.—RETURN of RECEIPTS in,

RECEIPTS AND EXPENDITURE.	St. Mary's, Lakelands, Sandymount, Co. DUBLIN.	Meath, Blackrock, Co. DUBLIN.	Merrion, Co. DUBLIN.	St. Bridget's LOUGHREA.	BALLINASLOE.
	Girls.	Boys.	Girls.	Girls.	Girls.
	27.	28.	29.	30.	31.
RECEIPTS.	£	£	£	£	£
Treasury Allowances,	895	1,867	1,656	1,033	630
Subscriptions, Legacies, Donations, &c.	–	974	6	–	–
Payments from County and Borough Rates.	338	881	640	408	287
Payments for Voluntary Inmates.	–	7	–	–	–
Hire of Labour,	–	9	50	–	–
Parental Money,	–	–	–	–	–
Sundries,	–	73	–	–	–
Total Receipts,	1,233	3,811	2,361	1,441	917
EXPENDITURE.					
Ordinary Charges.					
Officers' Pay (Salaries & House Wages).	70	516	203	260	80
Officers' Rations,	75	278	303	75	100
Food for Inmates,	591	1,005	1,002	590	375
Clothing of Inmates,	110	928	283	106	176
Washing, Fuel, and Light,	133	211	370	102	75
Repairs, Rates, and Taxes,	46	198	150	73	15
Furniture and House Sundries,	27	189	30	70	12
Printing and Office Expenses,	15	89	40	10	6
Travelling and Police Charges,	–	19	–	9	3
Medical Expenses; Funerals, &c.,	24	24	65	20	10
Sundries, Rewards, &c.,	18	87	34	7	4
Total Ordinary Charges,	1,109	3,539	2,485	1,322	856
Extra Charges.					
Rent of School Premises,	92	32	50	25	50
Interest,	210	28	143	61	60
Disposal, Home,	21	41	73	42	19
,, Emigration,	–	–	–	–	–
Building and Land,	–	1,060	–	–	–
Total Extra Charges,	323	1,161	266	128	129
Total Expenditure,	1,432	4,700	2,751	1,450	985

and EXPENDITURE for, the Year 1907—*continued.*

Clifden, Co. GALWAY.	Letterfrack, GALWAY.	Oughterard, Co. GALWAY.	St. Anne's, GALWAY.	Salthill, GALWAY.	St. Joseph's Home, KILLARNEY.		St. Joseph's, TRALEE.
Girls.	Boys.	Girls.	Girls.	Boys.	Boys.	Girls.	Boys.
32.	33.	34.	35.	36.	37.		38.
£	£	£	£	£	£	£	£
786	1,955	418	963	2,594	321	1,014	1,304
131	–	–	–	50	–	–	–
359	826	116	335	1,071	148	252	528
–	–	–	18	–	–	–	3
–	–	–	–	–	–	–	15
–	–	–	–	1	–	1	–
–	22	50	–	160	–	–	25
1,276	2,803	584	1,316	3,876	469.	1,267	1,875
222	561	114	150	797	115	330	597
37	75	95	110	100	60	60	–
494	1,096	241	568	1,411	177	404	807
165	241	60	113	399	36	150	222
112	213	48	120	198	24	61	144
24	137	12	52	241	10	10	114
19	79	11	36	162	5	3	30
10	19	4	7	25	1	6	21
–	16	–	1	16	1	–	5
12	40	14	10	42	7	16	30
4	78	–	9	73	1	17	44
1,099	2,555	599	1,176	3,464	437	1,057	2,014
160	65	40	120	100	2	10	80
–	70	–	–	88	16	200	–
17	26	6	20	40	–	–	31
–	–	–	–	–	2	–	–
–	421	–	–	–	–	–	126
177	582	46	140	228	18	210	237
1,276	3,137	645	1,316	3,692	455	1,267	2,251

12.—Industrial Schools.—Return of Receipts in,

Receipts and Expenditure.	Pembroke Alms House, Tralee. Girls.	Kilkenny. Boys.	Kilkenny. Girls.	St. John's, Parsonstown. Girls.	St. George's, Limerick. Girls.
	39.	40.	41.	42.	43.
Receipts.	£	£	£	£	£
Treasury Allowances,	912	2,137	1,304	814	1,304
Subscriptions, Legacies, Donations, &c.	–	467	486	100	–
Payments from County and Borough Rates.	182	988	561	352	488
Payments for Voluntary Inmates.	–	–	8	–	23
Hire of Labour,	–	–	–	–	–
Parental Money,	–	–	3	–	–
Sundries,	–	–	–	–	–
Total Receipts,	1,094	3,592	2,362	1,266	1,815
Expenditure.					
Ordinary Charges.					
Officers' Pay (Salaries & House Wages).	113	249	130	103	200
Officers' Rations,	59	298	220	58	–
Food for Inmates,	475	1,396	1,067	572	876
Clothing of Inmates,	160	310	251	111	241
Washing, Fuel, and Light,	55	211	244	110	162
Repairs, Rates, and Taxes,	66	15	121	44	223
Furniture and House Sundries,	51	143	206	32	66
Printing and Office Expenses,	11	30	18	11	80
Travelling and Police Charges,	–	59	7	–	–
Medical Expenses, Funerals, &c.,	3	75	31	14	59
Sundries Rewards, &c.,	6	35	19	16	42
Total Ordinary Charges,	999	2,821	2,314	1,071	1,949
Extra Charges.					
Rent of School Premises,	20	57	17	75	90
Interest,	–	374	235	–	296
Disposal, Home,	54	–	34	26	83
,, Emigration,	5	–	–	–	–
Building and Land,	–	353	–	422	–
Total Extra Charges,	79	784	286	523	469
Total Expenditure,	1,078	3,605	2,600	1,594	2,418

and EXPENDITURE for, the Year 1907—*continued.*

St. Vincent's, LIMERICK.	LIMERICK	Our Lady of Succour, Newtownforbes.	House of Charity, DROGHEDA.	Dundalk.	St. Columba, WESTPORT.	Ballaghaderreen.	St. Martha's, MONAGHAN.
Girls.	Boys.	Girls.	Boys.	Girls.	Girls.	Girls.	Girls.
44.	45.	46.	47.	48.	49.	50.	51.
£	£	£	£	£	£	£	£
1,690	2,212	1,576	1,199	1,013	1,143	898	1,146
–	51	–	40	–	–	180	–
212	903	633	708	505	496	323	500
–	32	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	32	–	–	–	–	–	–
1,904	3,230	2,209	1,947	1,518	1,639	1,401	1,646
248	696	450	153	142	37	108	190
180	90	–	197	150	60	114	–
370	1,080	1,216	902	670	669	550	821
521	400	213	246	251	375	100	259
337	206	226	136	87	246	150	203
389	169	91	70	60	90	111	101
213	78	129	97	20	60	–	126
16	30	24	12	15	30	10	9
13	8	8	–	5	15	1	–
22	54	38	25	30	25	21	10
115	91	73	30	22	24	2	8
3,124	2,902	2,468	1,868	1,452	1,631	1,167	1,727
60	90	–	14	36	–	–	–
–	207	–	60	–	–	225	–
96	38	26	–	24	23	18	33
–	–	–	–	–	–	–	–
–	–	162	–	243	–	–	–
156	333	188	74	278	23	243	33
3,280	3,237	2,656	1,942	1,725	1,654	1,410	1,760

12.—Industrial Schools.—Return of Receipts in,

Receipts and Expenditure.	St. Monica's, Roscommon.	Summer-hill, Athlone.	Benada Abbey, Tubbercurry.	St. Laurence, Sligo.	Clonmel.
	Girls.	Girls.	Girls.	Girls.	Boys.
	52.	53.	54.	55.	56.
Receipts.	£	£	£	£	£
Treasury Allowances,	568	1,303	608	1,435	1,952
Subscriptions, Legacies, Donations, &c.	–	–	160	160	3
Payments from County and Borough Rates.	240	596	280	693	981
Payments for Voluntary Inmates.	348	599	–	–	40
Hire of Labour,	–	–	–	–	23
Parental Money,	–	–	–	–	–
Sundries,	–	27	–	–	–
Total Receipts,	1,156	2,525	1,048	2,288	2,999
Expenditure.					
Ordinary Charges.					
Officers' Pay (Salaries & House Wages).	130	269	120	222	440
Officers' Rations,	30	134	80	30	249
Food for Inmates,	710	1,309	396	1,208	1,022
Clothing of Inmates,	166	302	128	274	438
Washing, Fuel, and Light,	210	472	61	310	279
Repairs, Rates, and Taxes,	10	89	81	145	147
Furniture and House Sundries,	53	112	94	113	143
Printing and Office Expenses,	9	34	13	45	97
Travelling and Police Charges,	–	5	–	5	2
Medical Expenses, Funerals, &c.,	51	30	20	30	58
Sundries, Rewards, &c.,	32	13	24	48	34
Total Ordinary Charges,	1,401	2,769	1,017	2,430	2,909
Extra Charges.					
Rent of School Premises,	50	90	–	190	–
Interest,	–	21	–	96	161
Disposal, Home,	–	–	15	20	54
„ Emigration,	–	–	–	–	4
Building and Land,	–	100	–	206	–
Total Extra Charges,	50	211	15	512	219
Total Expenditure,	1,451	2,980	1,032	2,942	3,128

and EXPENDITURE for, the Year 1907—*continued.*

St. Augustine's, TEMPLE MORE.	St. Francis, CASHEL.	St. Louis, THURLES.	TIPPERARY.	St. Catherine's, STRABANE.	Cappoquin, WATERFORD.	St. Dominick's, WATERFORD.	Mount Carmel, MOATE.
Girls.	Girls.	Girls.	Girls.	Girls.	Boys.	Girls.	Girls.
57.	58.	59.	60.	61.	62.	63.	64.
£	£	£	£	£	£	£	£
744	1,340	578	834	1,171	665	2,074	691
–	–	9	–	–	22	20	–
329	363	238	184	549	312	837	328
–	–	–	29	–	60	30	10
–	–	–	–	–	–	–	–
–	–	–	5	1	–	–	–
–	–	–	–	–	–	–	–
1,073	1,703	825	1,052	1,721	1,059	2,961	1,029
131	42	150	96	–	104	210	117
50	95	110	86	52	84	137	50
445	794	205	396	661	435	1,429	400
79	248	122	119	170	114	526	180
122	200	90	130	118	131	250	94
131	99	48	72	216	54	186	19
28	19	49	41	208	58	125	25
6	40	24	10	10	12	37	5
4	13	–	–	3	–	4	1
10	49	14	25	54	17	39	15
15	7	12	12	8	35	59	9
1,021	1,606	824	987	1,500	1,044	3,002	915
78	45	–	20	–	20	100	21
82	35	–	191	163	–	–	100
–	60	36	10	45	–	77	19
–	–	–	3	–	–	–	–
–	46	–	–	280	–	–	24
160	186	36	224	488	20	177	164
1,181	1,792	860	1,211	1,988	1,064	3,179	1,079

12.—Industrial Schools.—Return of Receipts in, and Expenditure for, the Year 1907—*continued.*

Receipts and Expenditure.	St. Aidan's, New Ross. Girls.	St. Michael's, Wexford. Girls.	Meath, Bray. Girls.	St. Kyran's, Rathdrum, Co. Wicklow. Boys.
	65.	66.	67.	68.
Receipts.	£	£	£	£
Treasury Allowances,	845	1,382	770	654
Subscriptions, Legacies, Donations, &c.	10	–	232	20
Payments from County and Borough Rates.	358	621	308	290
Payments for Voluntary Inmates,	10	236	21	82
Hire of Labour,	–	–	–	–
Parental Money,	–	–	–	1
Sundries,	–	–	14	–
Total Receipts,	1,223	2,239	1,345	1,047
Expenditure.				
Ordinary Charges.				
Officers' Pay (Salaries & House Wages).	128	186	212	273
Officers' Rations,	–	224	100	105
Food for Inmates,	602	1,217	370	502
Clothing of Inmates,	140	398	100	82
Washing, Fuel, and Light,	98	292	235	99
Repairs, Rates, and Taxes,	122	110	51	44
Furniture and House Sundries,	10	56	16	45
Printing and Office Expenses,	5	10	25	18
Travelling and Police Charges,	–	7	7	7
Medical Expenses, Funerals, &c.,	30	26	12	23
Sundries, Rewards, &c.,	9	30	40	9
Total Ordinary Charges,	1,144	2,556	1,168	1,207
Extra Charges.				
Rent of School Premises,	30	25	–	–
Interest,	–	67	115	42
Disposal, Home,	60	52	27	–
,, Emigration,	–	..	–	–
Building and Land,	–	201	–	–
Total Extra Charges,	90	345	142	42
Total Expenditure,	1,234	2,901	1,310	1,249

13.—Industrial Schools.—Summary showing Expenditure and Cost per Head for the Year 1907.

Industrial School.	Average Number.*	Total Cost of Maintenance and Management.	Add Rents and Interest.	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
	£	£	£	£	£	£	£
Balmoral,	415·04	7,794	429	205	203	—	19·8
Hampton House,	171	3,069	135	61	13	—	19
Milltown,	162·4	2,661	64	144	1	—	17·7
Nazareth Lodge,	87·8	1,210	—	—	—	—	13·8
Crumlin Road,	93	1,708	80	75	—	—	20
Whiteabbey,	132	2,210	286	—	—	—	18·9
Shamrock Lodge,	138·61	2,258	155	88	435	—	17·0
Middletown,	49	840	50	48	36	—	18·4
Lurgan Girls,	46·7	727	76	24	33	—	17
Lurgan Boys,	38·5	529	101	—	28	—	15·6
Cavan,	83	1,305	50	16	42	—	16
Ennis,	72	991	291	33	78	—	17·2
Clonakilty,	117·3	1,826	180	27	19	—	17·2
Queenstown,	46	746	90	13	6	—	18·3
Kinsale,	107·1	1,652	324	98	92	—	18·5
Upton,	206	3,721	87	102	414	—	17
Mallow,	60	1,078	110	35	77	—	19·1
Passage West,	62	1,014	100	15	8	—	18·1
Baltimore,	152·35	2,298	42	82	300	—	13·9
St. Finbar's, Cork,	171	3,088	87	129	181	—	18·3
Greenmount, Cork,	203·2	3,863	191	102	—	513	25
Killybegs,	106·3	1,982	46	21	228	—	17·1
Artane,	801·8	14,393	1,068	260	819	—	18·6
Booterstown,	86·6	1,382	68	49	8	—	17·2
Golden Bridge,	146	2,301	493	99	125	—	18·5
Carriglea,	153	2,580	353	68	169	—	18·5
Lakelands,	72	1,108	302	21	24	—	19·5
Menth, Blackrock,	148·7	3,539	61	41	713	—	19·7
Merrion,	127	2,484	192	73	217	—	19·9
Loughrea,	81	1,321	86	42	10	—	17·8
Ballinasloe,	50	855	110	18	81	—	18
Clifden,	65·7	1,099	160	16	33	—	18·9
Letterfrack,	156	2,554	135	26	80	—	16·9
Oughterard,	33	599	40	5	—	2	19·6
St. Anne's, Galway,	76·1	1,175	120	20	—	—	17·3
Salt Hill, Galway,	200	3,465	187	40	154	—	17·7
Killarney, Girls,	80	1,057	210	—	3	—	15·2
Killarney, Boys,	26	435	18	—	—	—	17·4
St. Joseph's, Tralee,	100	2,014	80	30	354	—	17·7
Pembroke Alms House,	69·6	1,001	20	59	7	—	15·4
Kilkenny Boys,	170	2,819	432	—	78	—	18·7
Kilkenny Girls,	114	2,313	251	34	258	—	20·5

* In the case of some schools voluntary inmates are included.

13.—Industrial Schools.—Summary showing Expenditure and Cost per Head for the Year 1907—*continued.*

Industrial School.	Average Number.*	Total Cost of Maintenance and Management.	Add Rents and Interest.	Add Expenses of Disposal.	Deduct Industrial Profit.	Add Industrial Loss.	Net Cost per Head with these additions or deductions.
	£	£	£	£	£	£	£
Parsonstown, . .	67·3	1,072	75	26	31	—	17
St. George's, Limerick,	120	1,948	386	83	110	—	19·2
St. Vincent's, Limerick,	130	2,925	60	96	134	—	22·7
Limerick Male, . .	172·7	2,900	297	38	270	—	17 2
Newtownforbes,	131·6	2,468	—	26	301	—	16 7
Drogheda, . . .	116	1,868	74	—	1	—	16·7
Dundalk, . . .	96	1,454	36	24	25	—	15·5
Westport, . . .	92	1,632	—	22	15	—	17·8
Ballaghaderreen, .	72·1	1,168	225	18	—	—	19·6
Monaghan, . .	91	1,725	—	33	60	—	18·7
Roscommon, . .	70	1,401	50	—	4	—	20·7
Athlone, . . .	171·8	2,771	111	—	96	—	15·2
Tubbercurry, . .	49	1,015	—	15	—	16	21·4
Sligo, . . .	116·9	2,430	286	20	471	—	19·4
Clonmel, . . .	150·7	2,910	161	58	250	—	19·1
Templemore, . .	56·6	1,021	160	—	46	—	20·1
Cashel, . . .	102·1	1,606	80	60	96	—	16·1
Thurles, . . .	45	824	—	36	127	—	16·3
Tipperary, . . .	64	988	211	13	113	—	17·2
Strabane . . .	98·2	1,499	162	45	46	—	16·9
Cappoquin, . .	57	1,043	20	—	2	—	18·6
Waterford, . .	170	3,000	100	77	215	—	17·4
Moate, . . .	55·8	915	121	18	75	—	17·5
New Ross, . . .	63	1,144	30	60	16	—	19 3
Wexford, . . .	128	2,555	92	51	150	—	19·9
Meath, Bray, . .	64·91	1,150	115	27	132	—	18
Rathdrum . .	59	1,206	42	—	—	—	21·2

* In the case of some schools voluntary inmates are included.

14.—RETURN showing the Rates paid by each County per Head per Week for Children in Industrial and Reformatory Schools during the Year ending 31st of December, 1907.

County Council or County Borough Council.	Rates.		Observations.
	To Reformatories.	To Industrial Schools.	
Co. Antrim, . .	2s. 6d.	2s. 6d.	—
Belfast City, . .	2s. and 2s. 6d.	2s. and 2s. 6d.	2s. to St. Finbarr's School, Cork, and St. Joseph's Industrial School, Dundalk.
Co. Armagh, . .	2s. 6d. & 1s. 6d.	2s. 6d. & 1s. 6d.	2s. 6d. for boys; 1s. 6d. for girls.
„ Carlow, . .	2s. 6d.	2s. 6d.	—
„ Cavan,	2s. 6d.	2s. 6d. and 2s.	2s. to Cavan; 2s. 6d. for all the others.
„ Clare, . . .	2s. 6d.	2s.	—
„ Cork, . .	2s. 6d.	2s.	—
City of Cork, . .	2s. 6d.	2s., 1s. 6d., and 1s.	1s. 6d. for boys and 1s. for girls; 2s. to Upton, Baltimore, and Meath, Blackrock.
Co. Donegal, . .	2s. 6d.	2s. 6d. and 2s.	2s. 6d. for children in the Lurgan, Drogheda, and Killybegs Schools; 2s. for all others.
„ Down, . .	2s. 6d.	2s. 6d.	—
„ Dublin, . .	2s. 6d.	2s.	—
City of Dublin, .	3s. and 3s. 6d.	2s.	3s. 6d. for Glencree, and 3s. for all other Reformatories.
Co. Fermanagh, .	2s. 6d.	2s. 6d.	—
„ Galway, . .	2s. 6d	2s. 6d. and 2s.	2s. 6d. to Artane and House of Charity, Drogheda, Industrial Schools; 2s. to all others.
„ Kerry, . .	2s. 6d.	2s. and 1s.	2s. for boys and 1s. for girls in Industrial Schools.
„ Kildare, . .	2s. 6d.	2s. 6d. and 2s.	2s.—St. Lawrence, Sligo; St. Francis, Cashel, and St. Joseph, Clifden; 2s. 6d. to all others.
„ Kilkenny, . .	2s. 6d.	2s. 6d.	
City of Kilkenny, .	2s. 6d.	2s. 6d., 2s., and 1s. 6d.	Artane, 2s. 6d.; Clonmel and Danesfort, 2s.; all the others, 1s. 6d
King's Co., .	2s. 6d.	2s. 6d. and 2s.	2s. 6d. to Artane and Benada Abbey, Summer Hill Athlone, Greenmount, and Drogheda; 2s. to all others.
Co. Leitrim, . .	2s. 6d.	2s. 6d. and 2s.	2s. to Cavan School; 2s. 6d. to all others.
„ Limerick . .	2s. 6d.	2s.	—
City of Limerick, .	2s. and 2s. 6d.	2s.	2s. 6d. for boys in Reformatories, and 2s. for girls in Reformatories, 2s. for children in Industrial Schools.

14.—RETURN showing the Rates paid by each County—*continued.*

County Council or County Borough Council.	Rates.		Observations.
	To Reformatories.	To Industrial Schools.	
Co. Londonderry, .	2*s.* 6*d.* and 2*s.*	2*s.* 6*d.* and 2*s.*	2*s.* 6*d.* for boys ; 2*s.* for girls.
City of Londonderry,	2*s.* 6*d.* and 2*s.*	2*s.* 6*d.* and 2*s.*,	2*s.* 6*d.* for boys ; 2*s.* for girls.
Co. Longford, . .	2*s.* 6*d.*	2*s.* 6*d.* and 2*s.*	2*s.* to St. Kyran's, Rathdrum School, and 2*s.* 6*d*, to all the others.
„ Louth, . .	2*s.* 6*d.*	2*s.* and 2*s.* 6*d.*	2*s.* to St. Joseph, Ballinasloe School ; 2*s.* 6*d.* to all others.
„ Mayo, . .	2*s.* 6*d.*	2*s.*	—
„ Meath, .	2*s.* 6*d.*	2*s.* 6*d.*	—
„ Monaghan, .	2*s.* 6*d.*	2*s.* and 2*s.* 6*d.*	2*s.*, St. Joseph's, Cavan, and St. Joseph's, Dundalk ; 2*s.* 6*d.* all others.
Queen's Co., . .	2*s.*	2*s.* 6*d.* and 2*s.*	2*s.* to the St. Joseph's, Killarney, Templemore, Passage West, and St. Finbar's Schools ; 2*s.* 6*d.* to all others.
Co. Roscommon, .	2*s.*	2*s.*	2*s.* for all.
„ Sligo, . . .	2*s* 6*d.*	2*s.* 6*d.*	—
„ Tipperary N.R.	2*s.* 6*d.*	2*s.*	—
„ Tipperary S.R.,	2*s.* 6*d.*	2*s.* 6*d.* and 2*s.*	2*s.* to the Cashel, Artane, Drogheda, Kilkenny Male, and Tipperary Schools ; 2*s.* 6*d.* to the others.
„ Tyrone, . .	2*s.* 6*d.*	2*s.* 6*d.* and 2*s.*	2*s.* to the Strabane and Nazareth Lodge Schools ; 2*s.* 6*d.* to all others.
„ Waterford, .	2*s.* 6*d*,	2*s.*	—
City of Waterford, .	2*s.* 6*d.*	2*s.* 6*d.* and 2*s.*	2*s.* St. Dominick Industrial School ; 2*s.* 6*d.* all others.
Co. Westmeath, .	2*s.*	2*s.* 6*d.* and 2*s.*	2*s.* to the Templemore, Limerick, St. Anne's, Galway, St. Catherine's, Strabane Schools ; 2*s.* 6*d.* to all others.
„ Wexford, . .	2*s.* and 2*s.* 6*d.*	2*s.* 6*d.* and 2*s.*	2*s.* to the Wexford, New Ross, and Rathdrum Schools ; 2*s.* 6*d.* to all others.
„ Wicklow, . .	2*s*	2*s.*	—

15.—Return of Outstanding Loans made to Reformatory and Industrial Schools.

Name.	Amount borrowed.	Date of Loan.	Amount repayable per annum (Principal and Interest).	Principal outstanding, 1st January, 1908.	When the final payment will be due.	Observations.
	£ s. d.		£ s. d.	£ s. d.		
Malone Reformatory, .	5,000 0 0	30th Jan., 1884,	(*a*) 267 18 4	—	Spring, 1919	Loan paid off 10 June, 1908.
Balmoral Industrial School, .	4,000 0 0	28th Aug., 1886,	(*a*) 200 0 0	1,926 1 11	Summer, 1921.	
St. Joseph's (co. Louth), (Female). do.	4,000 0 0	19th May, 1887,	(*a*) 200 0 0	2,221 9 10	Summer, 1922.	
Clonakilty do.	4,000 0 0	9th July, 1887,	(*b*) 254 5 10	1,657 0 5	1st May, 1922.	(*a*) Annuity: charge remains the same throughout the period.
St. Patrick's (Belfast) do.	5,000 0 0	12th May, 1887,	(*a*) 259 0 0	2,304 8 8	Spring, 1922.	
Marble Hill do.	500 0 0	5th June, 1889,	(*a*) 25 0 0	330 18 7	1st May, 1925.	(*b*) Repayable by equal instalments of principal with decreasing interest charge. The amount given is the maximum annual charge.
Lurgan do.	3,000 0 0	30th June, 1890,	(*b*) 181 10 8	1,499 13 4	1st May, 1925.	
Danesfort do.	4,500 0 0	20th June, 1891,	(*b*) 282 13 9	2,378 10 3	1st May, 1926.	
Meath do	3,500 0 0	11th Mar., 1891,	(*b*) 220 15 0	1,850 0 0	1st May, 1926.	
St. Joseph's (co. Limerick) do.	3,000 0 0	31st Mar., 1894,	(*b*) 190 14 4	1,928 10 9	1st May, 1931.	
Loughrea do.	500 0 0	31st Mar., 1894,	(*a*) 25 0 0	323 15 2	1st May, 1930.	

16.—Showing the Causes of Deaths of Children under Detention in year ending the 31st

SCHOOLS.	Lung Disease.		Brain Disease.		Heart Disease.		Mesenteric and Bowel Disease.		Fever	
	M.	F.	M.	F.	M.	F.	M.	F.	M	
Reformatories.										
Philipstown,	1	–	–	–	–	–	–	–	–	–
High Park,	–	1	–	–	–	–	–	–	–	–
Total,	1	1	–	–	–	–	–	–	–	–
Industrial Schools.										
Balmoral,	–	–	–	–	–	–	–	–	–	–
Milltown,	–	–	–	–	1	–	–	–	–	–
Nazareth Lodge,	–	–	1	–	–	–	–	–	–	–
Crumlin Road,	–	1	–	–	–	–	–	–	–	–
Abbeyville,	–	–	–	–	–	1	–	–	–	–
Shamrock Lodge,	–	1	–	–	–	–	–	–	–	–
Lurgan (Male),	–	–	–	–	–	–	1	–	–	–
Ennis,	–	1	–	–	–	–	–	–	–	–
Clonakilty,	–	3	–	–	–	–	–	–	–	–
Queenstown,	–	1	–	–	–	–	–	–	–	–
Danesfort,	1	–	–	–	–	–	–	–	–	–
Mallow,	–	–	–	1	–	–	–	–	–	–
St. Finbar's Cork,	–	1	–	1	–	1	–	–	–	–
Artane,	3	–	–	–	–	–	–	–	–	–
Carriglea Park,	1	–	–	–	–	–	–	–	–	–
Lakelands,	–	1	–	–	–	1	–	–	–	–
Letterfrack,	2	–	1	–	–	–	–	–	–	–
Salthill,	2	–	–	–	–	–	–	–	–	–
Killarney,	–	2	–	–	–	–	–	–	–	–
Kilkenny (Male),	1	–	–	–	–	–	–	–	–	–
Kilkenny (Female),	–	–	–	–	–	–	–	1	–	–
Parsonstown,	–	1	–	–	–	–	–	–	–	–
St. Vincent's, Limerick,	–	–	–	1	–	–	–	1	–	–
Newtownforbes,	–	–	–	1	–	–	–	–	–	–
Ballaghadereen,	–	1	–	–	–	–	–	–	–	–
Monaghan,	–	1	–	1	–	–	–	–	–	–
Benada Abbey,	–	1	–	–	–	–	–	–	–	–
Sligo,	–	1	–	–	–	–	–	–	–	–
Clonmel,	–	–	–	–	1	–	–	–	–	–
Strabane,	–	1	–	–	–	–	–	–	–	–
Waterford,	–	2	–	–	–	–	–	–	–	–
Rathdrum,	–	–	–	–	–	–	–	–	–	–
Total,	10	19	2	5	2	3	1	2	–	–

Reformatory and Industrial Schools, and on Licence, during the of December, 1907.

Accidental Deaths.		Spinal and Hip Diseases.		Other Causes.		Total.			Schools.
M.	F.	M.	F.	M.	F.	Male.	Female.	Total.	
-	-	-	-	-	-	1	-	1	Philipstown.
-	-	-	-	-	-	-	1	1	High Park.
-	-	-	-	-	-	1	1	2	Total.
-	-	3	-	-	-	3	-	3	Balmoral.
-	-	1	-	-	-	2	-	2	Milltown.
-	-	-	-	-	-	1	-	1	Nazareth Lodge.
-	-	-	-	-	-	-	1	1	Crumlin Road.
-	1	-	-	-	-	-	2	2	Abbeyville.
-	-	-	-	-	-	-	1	1	Shamrock Lodge.
-	-	-	-	-	-	1	-	1	Lurgan (Male).
-	-	-	-	-	-	-	1	1	Ennis.
-	-	-	-	-	-	-	3	3	Clonakilty.
-	-	-	-	-	-	-	1	1	Queenstown.
-	-	-	-	-	-	1	-	1	Danesfort.
-	-	-	-	-	-	-	1	1	Mallow.
-	-	-	-	-	-	-	3	3	St. Finbar's, Cork.
-	-	-	-	-	-	3	-	3	Artane.
-	-	-	-	-	-	1	-	1	Carriglea Park.
-	-	-	-	-	-	-	2	2	Lakelands.
-	-	1	-	-	-	4	-	4	Letterfrack.
-	-	-	-	-	-	2	-	2	Salthill.
-	-	-	-	-	-	-	2	2	Killarney.
-	-	-	-	-	-	1	-	1	Kilkenny (Male).
-	-	-	-	-	-	-	1	1	Kilkenny (Female).
-	-	-	-	-	-	-	1	1	Parsonstown.
-	-	-	-	-	-	-	2	2	St. Vincent's, Limerick.
-	-	-	-	-	-	-	1	1	Newtownforbes.
-	-	-	-	-	-	-	1	1	Ballaghadereen.
-	-	-	-	-	-	-	2	2	Monaghan.
-	-	-	-	-	-	-	1	1	Benada Abbey.
-	-	-	-	-	-	-	1	1	Sligo.
-	-	-	-	-	-	1	-	1	Clonmel.
-	-	-	1	-	-	-	2	2	Strabane.
-	-	-	-	-	-	-	2	2	Waterford.
-	-	1	-	1	-	2	-	2	Rathdrum.
-	1	6	1	1	-	22	31	53	Total.

THE

SIXTY-NINTH ANNUAL REPORT

OF THE

DEPUTY KEEPER

OF THE

PUBLIC RECORDS.

Presented to Parliament by Command of His Majesty.

LONDON:
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THE SIXTY-NINTH REPORT

OF THE

DEPUTY KEEPER OF THE PUBLIC RECORDS.

TO THE KING'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

I RESPECTFULLY beg to submit to Your Majesty a Report of the proceedings in the Public Record Office during the year 1907.

A Clerkship which was vacant at the beginning of 1907 was filled up by the appointment of Mr. J. J. O'Reilly, M.A.

§ I. LEGAL AND LITERARY SEARCH ROOMS.

The number of registered applications for the production of Records, State Papers, &c. in 1907 was:—

In the Legal Search Room	44,820
In the Literary Search Room	52,375
Total	97,195

The value of stamps purchased by the public and cancelled in the Legal Search Room was:—

	£	s.	d.
For 764 copies	428	16	0
„ 2 attendances	2	12	0
„ 1,991 inspections	99	11	0
„ 215 general searches	26	17	6
	£557	16	6
Stamp duty on copies	£8	9	0

Fees for copying to the value of 5*l* 14*s*. 0*d*. were remitted to various Departments of State.

§ II. GOVERNMENT SEARCH ROOM.

During the year 1907 the number of new permits granted for the inspection of Departmental Records was 79.

75 Wt L 190 5/0 D & S 32 31275*

The following table shows the number of applications and searches on behalf of Government Departments whose archives are deposited in the Public Record Office, and the number of volumes issued and inspected, during the year 1907:—

Department.	Searches.	Documents issued or inspected.
Treasury	194	396
Treasury Solicitor	43	58
Official Solicitor	15	15
Home Office	301	534
Foreign Office	89	156
Colonial Office	277	375
War Office	655	2,133
Admiralty	222	2,193
Lord Chamberlain's Department	22	73
Lord Steward's Department	4	21
Paymaster General's Department	13	131
Charity Commission	176	1,156
Customs	3	15
National Debt Office	1	5
Board of Trade	2	5
Duchy of Lancaster	14	14
Miscellaneous	8	15
Total	2,039	7,295

The following table shows the number of volumes or bundles inspected by readers with special permits from Government Departments to consult such of their archives, deposited in the Public Record Office, as are not open to public inspection:—

Department.	Documents inspected.
Treasury	637
Treasury Solicitor	13
Home Office	341
Foreign Office	3,546
Colonial Office	7,442
War Office	656
Admiralty	1,117
Lord Chamberlain's Department	326
Lord Steward's Department	3
Paymaster General's Department	10
Customs	64
Audit Office	45
Miscellaneous	1,125
Total	15,325

§ III. TRANSFERS.

The following books and documents were received at the Public Record Office during the year 1907:—

From the Central Office of the Supreme Court of Judicature:

King's Bench, Judgments, 1876 to 1886; 338 vols.
" " Indexes 1876 to 1880; 19 vols.
King's Bench, Cause Books, 1880 to 1886; 632 vols.
Common Pleas, Judgments, 1876 to 1880; 80 vols.
" " Indexes, 1876 to 1880, 5 vols.
Common Pleas, Cause Books, 1875 to 1880; 70 vols.
Exchequer of Pleas, Judgments, 1876 to 1880; 109 vols.
" " Indexes, 1876 to 1880; 11 vols.
Exchequer of Pleas, Cause Books, 1879 to 1880; 24 vols.
Chancery Registrars' Minute Books, 1870 to 1885; 713 vols.

From the Admiralty:—

In Letters, 1858 to 1862; 120 bundles.
Minutes, 1858 to 1862; 5 bundles;
Admirals' Patents, 1851 to 1861; 9 bundles.
Vice-Admirals' Patents, 1846 to 1862; 5 bundles.
Digests, 1858 to 1862; 20 bundles.

From the Charity Commission:—

Accounts of Charities, 1896 to 1900; 140 bundles.

From the Colonial Office:—

Books and Papers of the Land and Emigration Commissioners, 64 vols.
Entry-Books of Correspondence, 1768 to 1873; 69 vols.
Entry-Books of Commissions, Instructions, Warrants, &c.: —1688 to 1856; 52 vols.
Precedents and Law Reports; 5 vols.

From the Exchequer and Audit Office:—

The Vouchers and Rentals of the Commissioners of His Majesty's Woods, Forests, and Land Revenues for the year 1904-1905.

From the Foreign Office:—

Archives of the British Legation at Stockholm, 1812 to 1860; 103 vols.
Archives of the British Embassy at Madrid, 1850 to 1869; 271 vols.
Archives of the British Embassy at Paris; 11 cases.

From the Home Office:—

Naturalization Papers, Nos. 4,597 to 6,520; 45 pouches
" A 1 to A 274; 7 pouches.
" AA 1 to AA 3; 1 pouch.
" B 1 to B 85; 4 pouches.
" C 1, D 1, E 1; 1 pouch.

Lists of Convicts transported from the United Kingdom (excepting Ireland), 1st Jan., 1787, to 31st Dec., 1867; 19 vols.

Names of Colonies to which convicts were transported and names of ships conveying them; 1 vol.

Book giving number transported; 1 vol.

Domestic Correspondence, &c., 1812 to 1841; 35 bundles.

From the Registrar-General (for safe custody only):—

Printed Indexes to the Registers of Births, Deaths, and Marriages, 1893 to 1905; 156 vols.

From the Treasury:—

Registered Papers, 1879; 219 bundles.

Registers; 3 vols.

Skeleton Registers, 1871 to 1876; 6 vols.

Letter Books; 12 vols.

Treasury Solicitor's Office (Law Courts Branch), Papers; 134 bundles.

From the War Office:—

Records from the Royal Engineers' Record Office at Chatham—

Correspondence, Description Books, &c., 1787 to 1868; 60 vols.

Records from the Royal Artillery Record Office at Woolwich—

Ordnance Letter Books, King's Warrants, &c., 436 vols.

Pension Minutes; 216 vols.

Disbursements, 1730 to 1860; 760 vols.

General Orders, Letter Books, Order Books, and Description Books, 976 vols.

Muster Rolls, Pay Lists, and Monthly Returns of the Royal Engineers and Royal Artillery; 3,323 vols.

From the Office of Works and Public Buildings:—

Letters, Minutes, Accounts, and Miscellanea, 1688 to 1884; 363 vols.

Acquired by purchase from Messrs. Hodgson & Co., Chancery Lane:—

"Establishment Books of His Majesty's Guards, Garrisons and Land Forces" from 1685 to 1689 and 1692 to 1703 respectively; 2 vols. (Copies.) Formerly belonging to William Bromley, Esq., of Baginton, co. Warwick.

The following were removed from the Public Record Office during the year:—

To the Patent Office—Specifications, 1852 to 1887; 1,648 bundles.

To the War Office—Registered Papers; 3,261 bundles.

§ IV. CALENDARS.

PATENT ROLLS:

Further progress was made with the systematic Calendar of the Patent Rolls mentioned in previous Reports:—

Henry III.—The text of a volume dealing with the years 1247 to 1258 was completed at press in 1907. The index was in the printers' hands at the end of the year.

Edward I. & II.—The Calendar for these reigns is complete in eight volumes.

Edward III.—The ninth volume for this reign, dealing with the years 1350 to 1354, was published in 1907.

Five sheets of the tenth volume were passed for press.

Richard II.—Twelve sheets, making in all twenty-nine sheets, of the sixth and last volume for this reign, were passed for press in 1907.

Henry IV.—The third volume for this reign, dealing with the years 1405 to 1408, was published in 1907.

Nine sheets of the fourth and last volume were passed for press.

Henry VI.—The second and third volumes for this reign, dealing respectively with the years 1422 to 1429 and 1429 to 1436, were published in 1907.

Twenty-six sheets of the fourth volume were passed for press.

Edward IV. & V. and Richard III.—The Calendar for these reigns is complete in three volumes.

CLOSE ROLLS:

Further progress was also made with the similar Calendar of the Close Rolls:—

Edward I.—Eleven sheets, making in all thirty-three sheets of the fifth volume for this reign, were passed for press in 1907.

Edward II.—The Calendar for this reign is complete in four volumes.

Edward III.—The text of the tenth volume for this reign, dealing with the years 1354 to 1360, was completed at press in 1907.

The printing of the eleventh volume was begun.

CHARTER ROLLS:

The text of the third volume of this Calendar, dealing with the years 1300 to 1326, was completed at press in 1907, and the index was in the printers' hands at the end of the year.

The printing of the fourth volume was begun.

Inquisitiones Post Mortem:

Further progress was made with the systematic Calendar of *Inquisitiones post mortem* and other analogous documents:—

Henry III.—The Calendar for this reign is complete in one volume.

Edward I.—The first volume for this reign was published in 1906.

Edward II.—The text of the first volume for this reign was completed at press in 1907. The index was in the printers' hands at the end of the year.

Edward III.—Work upon this section was resumed in 1907.

Henry VII.—The first volume for this reign was published in 1898.

Ancient Deeds:

Some material was prepared in 1907 for the sixth volume of the Descriptive Catalogue of Ancient Deeds.

Letters and Papers, Foreign and Domestic, of the reign of Henry VIII.:

The second part of the twentieth volume of this series, dealing with the period from August to December, 1545, was published in 1907.

Twenty-seven sheets of the twenty-first volume were completed at press.

State Papers, Domestic Series, of the reign of Charles II.:

The seventeenth volume of this series, dealing with the period from March, 1675 to February, 1676, was published in 1907, under the editorship of Mr. F. H. Blackburne Daniell.

Twenty sheets, making in all thirty-one sheets, of the eighteenth volume were passed for press.

State Papers, Domestic Series, of the reign of William III.:

Nine sheets, making in all twenty-two sheets, of the sixth volume of this series, were passed for press in 1907.

State Papers relating to Ireland, A.D. 1625-1670:

A volume dealing with the years 1663 to 1665 was published in 1907, under the editorship of Mr. R. P. Mahaffy.

Forty-two sheets, making in all forty-five sheets, of the succeeding volume were passed for press.

State Papers, Colonial Series:

The text of a volume dealing with America and the West Indies in the year 1699 was completed at press by Mr. Cecil Headlam in 1907.

STATE PAPERS, FOREIGN SERIES, OF THE REIGN OF ELIZABETH:

The fifteenth volume of this series, dealing with the period from January, 1581, to April, 1582, was published in 1907, under the editorship of Mr. A. J. Butler.

Twenty-one sheets of the sixteenth volume were passed for press.

TREASURY BOOKS:

The text of the third volume of this series was completed at press in 1907 by Dr. W. A. Shaw.

Thirty-seven sheets of the fourth volume were passed for press.

§ V. LISTS AND INDEXES.

EARLY CHANCERY PROCEEDINGS:

Eighteen sheets, making in all thirty-five sheets, of the fourth volume of the List of these documents, were passed for press in 1907.

CHANCERY PROCEEDINGS; SERIES II.:

Thirty-three sheets, making in all thirty-five sheets, of the second volume of the List of these documents were passed for press in 1907.

INQUISITIONS POST MORTEM:

The first volume of an Index of Inquisitions *post mortem*, dealing with the reigns of Henry VIII., Edward VI., and Philip and Mary, was published in 1907. (Lists and Indexes, No. XXIII.) It gives in tabular form the exact references to the originals and transcripts preserved among the records of the Chancery, the Exchequer, and the Courts of Wards and Liveries.

Sixteen sheets of the second volume, dealing with the reign of Elizabeth, were passed for press.

RENTALS AND SURVEYS:

Thirty-three sheets of the tabulated list of these documents were completed at press in 1907.

§ VI. CLASSIFICATION AND ARRANGEMENT.

The work of arranging, and as far as possible, classifying the Miscellanea of the Chancery has made good progress, and it is hoped that a complete inventory of this collection may soon be available.

The records of the War Office have now been completely re-arranged and listed.

The re-arrangement of the Home Office Records, began in 1906, has made good progress, and the Colonial Office Records have been taken in hand.

§ VII. OPERATIONS BY REPAIRERS AND ATTENDANTS.

—	Membranes.	Leaves.	Rolls, Volumes, Bundles or Files.
Flattened	54,940	—	—
Repaired	3,016	20,367	—
Sized	—	18,834	—
Guarded	10,267	23,120	—
Sewed	2,743	—	—
Bound	—	—	84
Filed	11,308	—	—
Numbered	313	23,020	26,280
Stamped	207,909		

The foregoing figures represent largely the repairing, guarding and filing of the different classes of Chancery Inquisitions, Chancery Proceedings and Feet of Fines, the repairing of the *Cartæ Antiquæ* Rolls, and Issue Rolls, and the guarding and filing of some of the Miscellanea of the Chancery. They also include work done upon the State Papers, Domestic, Irish, Colonial and Foreign, which are being bound *pari passu* with the printing of Calendars of these different series.

Considerable attention was devoted during the year to the question of the preservation of the records from dirt and decay, and in order to prevent the accumulation of dust it has been decided that each room in the building shall in turn be emptied of its contents, and thoroughly cleaned, the volumes or bundles being taken out, carefully examined, and freed from dust and afterwards replaced. It is hoped that in this way the contents of every room in the office will be thoroughly overhauled at least once in ten years.

A staff of porters, using the vacuum cleaner, will be continuously employed under the supervision of an assistant keeper in effecting this object.

§ VIII. THE ACTS 40 & 41 VICT. c. 55, AND 61 & 62 VICT c. 12.

The following Schedules of Documents not considered of sufficient public value to justify their preservation in the Public Record Office were prepared and submitted to both Houses of Parliament during the Session of 1907, in accordance with Rule 2 of the Rules approved by Order in Council of 30 June, 1890, and, no objection having been made thereto, became operative, viz.:—

1. Schedule of Documents belonging to the Crown Side of the late Court of King's Bench and present King's Bench Division of the High Court of Justice.

2. Second Schedule of Documents in the Department of the Inland Revenue.

3. Schedule of Documents belonging to the late Courts of King's Bench, Common Pleas, and Exchequer and the succeeding King's Bench, Common Pleas and Exchequer Divisions of the High Court of Justice.

§ IX. CHRONICLES AND MEMORIALS OF GREAT BRITAIN AND IRELAND DURING THE MIDDLE AGES.

The text of a volume of Year Books of the 20th year of Edward III. was completed at press in 1907.

§ X. MISCELLANEOUS PUBLICATIONS.

CLOSE ROLLS OF THE REIGN OF HENRY III.:

Twenty sheets, making in all thirty sheets, of the Latin text beginning in 1234, were passed for press in 1907.

FEUDAL AIDS:

Fifteen sheets of the fifth volume of this work were passed for press in 1907.

§ XI. RESEARCHES IN FOREIGN ARCHIVES.

ROME:

Mr. W. H. Bliss and Mr. J. A. Twemlow continued their researches in the archives of the Vatican.

Eighteen sheets, making in all forty-one sheets, of the eighth volume of the Calendar of entries in the Papal Registers relating to Great Britain and Ireland, were passed for press in 1907.

The printing of the ninth volume was also begun.

VENICE:

The thirteenth volume of the Calendar of documents relating to Great Britain and Ireland, dealing with the period from July, 1613, to August, 1615, was published in 1907, under the editorship of Mr. A. B. Hinds, M.A.

The text of the succeeding volume was also completed at press.

SPAIN, BRUSSELS AND VIENNA:

Major Martin S. Hume continued his researches.

§ XII. HISTORICAL MANUSCRIPTS COMMISSION.

The work of this Commission was conducted, as before, at the Public Record Office, the Deputy Keeper of the Records being the Acting Commissioner, and one of the Assistant Record Keepers being the Secretary.

Some of the Clerks of the Public Record Office were employed, out of office hours, in calendaring the Cecil Manuscripts, temporarily removed from Hatfield House, and some, also out of office hours, in compiling indexes to the Calendars and Reports issued by the Commission.

§ XIII. THE OFFICE OF LAND REVENUE RECORDS AND ENROLMENTS.

Value of Stamps purchased by the public and cancelled in the Office of Land Revenue Records during the year 1907 was:—

	£	*s.*	*d.*
For Office Copies	5	7	0
Stamp duty thereon	0	7	0
For Searches and Inspections ...	1	5	6
For Enrolments by entry ...	5	17	0
	£12	16	6

Fees to the amount of £21 9*s.* 6*d.* were remitted to several Departments of State.

All which is humbly submitted to Your Majesty.

Dated this 21st day of March, 1908.

(Signed) H. C. MAXWELL LYTE.

I humbly certify to Your Majesty that this Report is made by the Deputy Keeper of the Records, pursuant to the 17th section of the Act 1 & 2 Vict. c. 94.

(Signed) HERBERT H. COZENS HARDY, M.R.

THE

FORTIETH REPORT

OF THE

DEPUTY KEEPER

OF THE

PUBLIC RECORDS

AND

KEEPER OF THE STATE PAPERS

IN

IRELAND.

Presented to both Houses of Parliament by Command of His Majesty.

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No. 18,807

DUBLIN CASTLE,

1st September, 1908.

SIR,

I have to acknowledge the receipt of your letter of the 28th ult., forwarding, for submission to His Excellency the Lord Lieutenant, the Fortieth Report of the Deputy Keeper of the Public Records and Keeper of the State Papers in Ireland.

I am,

Sir,

Your obedient Servant,

(Signed), J. B. DOUGHERTY.

The Deputy Keeper,
Public Record Office of Ireland,
Four Courts,
Dublin.

THE FORTIETH REPORT

OF THE

DEPUTY KEEPER OF THE PUBLIC RECORDS

AND KEEPER OF THE STATE PAPERS

IN IRELAND.

TO THE RIGHT HONOURABLE THE EARL OF ABERDEEN,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY

I respectfully beg to submit my Report, under the direction of the Right Honourable the Master of the Rolls, and pursuant to the 24th section of the Public Records (Ireland) Act, 1867, on the proceedings had during the year 1907 in connexion with the Public Records of Ireland.

1. A collection of 459 Books and Parcels of Papers, records of the Irish Branch of the Commissariat Department of the War Office, 1845–52, which had been deposited among the War Office papers in the Public Record Office, London, has, with the sanction of the Army Council, been transferred from London to this office. During the famine period, 1845–9, the storage, transport, and distribution of food supplies, and to a very large extent, especially in 1846–7, the organisation of the admirable system of relief, were controlled and carried out through the medium of the Commissariat Department of the Army, which was specially strengthened in Ireland for this purpose.

A large mass of papers of the Commission for Relief of Distress under 10 Vic., c. 7, and other Acts, with which the Commissariat was in intimate co-operation, were already preserved here.

The Commissariat collection now received contains among other classes: Letters received by Sir R. Routh, Commissary-General, from the Treasury in reference to purchase of stores, Government contributions, &c., also from Commissaries, Relief officers, and others; Tenders and contracts for bread, meat, and forage; Accounts of stores, of local Relief committees, of grants and issues of meal. The latter sometimes in detail, giving names of the poor recipients.

In 1852 the Irish branch of the Commissariat was, for the time, discontinued, and its records removed to headquarters. They were arranged and ticketed in 1854 by Mr. Lascelles, and passed to the Record Office with the War Office Papers.

2. The arrangement of the more important portion of the Records brought in sacks from the Landed Estates Record Office, Custom House, in 1869 (referred to in the 33rd Report, par. 19), has been completed by Mr. Langman, whose report on the records found is printed as an Appendix to this Report.

The Records thus made available consist chiefly of Warrants and Debentures for payments, from about the beginning of the 17th century; Accounts, and cancelled Stock Debentures, also Letters, Parliamentary Papers, Legal Papers, and some misplaced documents from other collections.

The Warrants and Debentures are supplemental to others of the same classes already arranged, and, with them, form the fullest record of the payments for public works and services, military and civil, in Ireland, obtainable from the end of the 16th century.

The Accounts contain much detail, especially for the Commonwealth period, and for military affairs, 1794 to 1816. The papers of the Commission for stating the accounts of the Army in Ireland—1689–96—are full of particulars and names not hitherto available.

3. Attention has been called to the fact that the operation of the Land Purchase Acts, in the cases of estates which are being completely sold, is calculated to risk the loss of many old Estate Records which may be of interest. With the removal of any immediate reason for keeping them, and the closing of the offices in which they are now kept, there is a danger that old Maps, early Rentals, Manor Court Rolls, and other papers of very considerable value for local history, may suffer from neglect or even be destroyed. Under the 16th section of the Public Records Act, "any Trustee or other Person having the custody of any Deeds or Documents, which, in the opinion of the Master of the Rolls, are fit to be deposited in the Public Record Office" are authorized to deposit them here. It would be very desirable that Landowners and Agents of Estates, who may be in possession of old Records of real interest, which it is no longer necessary to keep, should avail themselves of the provisions of this section.

Receipt of Records.

4. From the Record and Writ Office, Chancery Division:—

Affidavits, 1886.
Appearances, 1885-1887.
Cause Book, 1886.
Certificates, Chief Clerks', 1886; Accounts of Munster Bank filed with, 1885-6.
,, of Lower Scale, 1885-1886.
Claim, Statements of, 1886-1887.
Consents, 1885-1886.

Crown Conveyances (Board of Trade), 1886.
Deed Rolls, 1886.
Defences, 1886.
Drainage Awards and Maps, 1886.
Fiants, 1886.
Miscellaneous Documents, Index to, 1886.
Motions, 1886.
Motions and Summonses, Entry Books, 1886.
,, ,, (Land Judges), 1886; Entry Book, 1885-6.
,, ,, Receipt Book, 1886.
Notices, Common (Land Judges), 1886; Entry Book, 1885-1886.
,, ,, Entry Books, 1885-1886.
Orders, Index to, 1886.
,, Lord Chancellor's Court and Chamber, 1886; Chamber (Origl.), 1886.
,, Rolls Court and Chamber, 1886; Chamber (Origl.), 1886.
,, Side Bar, 1886.
,, Vice-Chancellor's Court and Chamber, 1886; Chamber (Origl.), 1886.
,, (Land Judges) appointing Receivers, &c., in Chancery matters, 1878-1886.
,, and Common Notices, 1886.
Patent Roll, 1886.
Petitions, 1885-1886, Index, 1886.
Piers and Harbours, Awards, &c., 1886.
Pleadings, General Index to, 1882-6.
Powers of Attorney (lodged under Conveyancing Act), 1886.
Receivers' Accounts, 1886.
Recognizance Rolls, 1886.
Recognizances (Origl.), 1886.
Replies and Joinders of Issue, 1884-1886.
Solicitors, Documents on admission of, 1884-1886.
Summons, Writs of, 1886.
,, ,, ,, (Common Law), (Copies), 1886.
Summonses, 1886.
Summonses (Administration), 1885-1886.

5. From the Land Judge's Offices, Chancery :—

Affidavits, with Alphabetical and Numerical Lists, 1886.
Appearance Books, 1885-1887.
Bespeak Books, 1885-1886.
Building Leases, Petition for, 1886.
Cash Books, 1885-6.
Conveyances, Copies of, 1886.
Declarations of Title, 1886.
Incumbrances, Schedules of (Draft), 1885-1886.
Miscellaneous Documents and Consents, 1885-1886.
Notices to Tenants, Consolidated Final, 1886.
Objections to Final Schedules, 1881-1888.
,, ,, to Notices and Rentals, 1885-1887.
,, (Tenants) to Notices and Rentals, Index to, 1874-86.
Order Book, Absolute (for Sale), 1883-1886.
,, ,, Miscellaneous, 1885-1886.
Partition Orders, 1884.
Paymasters' Certificates, 1886.
Petitions, 1886.
Private Proposals, 1886.
Receiver Rulings (Examiners), 1885-1886.
,, ,, (Judge Ormsby), 1886.
Receivers' Accounts, 1886; Index, 1879-1886.
Rentals, 1885-1886.

6. From the Office of Registrar in Lunacy :—

Accounts, Affidavits, Reports and Petitions, 1886.

7. From the Office of the Registrar of Judgments :—

Memorandums of Judgments and other Incumbrances affecting real Estate, 1886.
Memorandum of Judgments obtained after 1850, 1886.
Requisitions for Negative Searches, 1886.
Satisfactions, Memorandum of, 1886.

8. From Consolidated Taxing Office :—

Allotment Book, 1873-1879.
Attendance Books (Master Fitzgerald), 1878-1886.
Costs Book (Receivers'), Master Coffey, 1866-1880.
Costs Certified (Master Coffey), Chancery, Land Judge, and Probate, 1886.
,, ,, ,, ,, Solicitor and Client, 1886.
,, ,, ,, ,, Law, 1886.
,, ,, (Master Fitzgerald), Law, 1885-1886.
,, ,, ,, ,, Chancery, and Probate, 1886.
,, ,, (Master Robinson), 1886.
,, ,, (Masters Colles, Gartland and Hearne, and Deputy Master Allen), Indexes to, 1867-1881.
,, ,, (Landed Estates Court Petitions), Index to, 1866-1877.
,, Lodgment Book of (Master Hearne), 1884 and 1886.
,, Receipt Book (Master Hearne), 1881-1882.
,, Certifying Books (Master Hearne), 1881 and 1884-1886.
,, ,, ,, (Master Fitzgerald), 1884-1886.
,, ,, ,, ,, ,, Chancery and Law, 1882-1884.
,, ,, ,, (Landed Estates Court), 1870-1877 and 1884.
Long and Short List Book (Master Tandy), 1861-1862.
Summons Book (Master Gartland), 1866-1870.
,, ,, (Master Hearne), 1879-1881.

9. From the King's Bench Division :—

Affidavits, with Index, 1895-96.
,, Judgment Mortgage, with Index, 1895-96.
Bills of Sale, 1895-96.
Cause Books, with Index, 1895-96.
Certificates of Costs, 1895-1896.
Consents and Awards, with Index, 1895-96.
Court Books, 1895-96.
Deeds of Arrangement, 1895-96; Index, 1888-1895.
Interpleader File, with Index, 1882-94.
Judgments, with Index, 1895-96.
Land Act Notices, with Index, 1895-96.
Petitions for Arrangement, 1895-96; Index, 1890-92.
Pleadings, 1895-96.
Precipes, with Index, 1895-96.
,, for Subpœna, 1895-96.
Returned Writs, with Index, 1895-96.
Rule Books, 1895-96.
Satisfactions, 1893-96; Index, 1895-96.
Side Bar Rule Book, 1889-90.
Warrants to confess Judgment, with Index, 1895-96.
Writs of Summons, 1895-96.

10. From the King's Bench (late Exchequer) Division :—

Affidavits, with Index, 1895-96.
Cause Books, with Index, 1895-96.
Chamber Orders, 1895-96.
Consents, Awards, and Deeds of Submission, 1875-96.
Court Books, 1895-96.
Executions, 1891-93.
Execution Renewal Books, 1871-94.

Judges' Reports and Counsels' Certificates, 1885-1896.
Judgments, with Indexes, 1895-1896.
Judgments on Cognovit, 1894-5.
Judgment and Precipe Book, 1890-94.
Land Act Notices, 1894-95.
Orders to draw Money, 1878-85.
Pleadings, 1895-96.
Precipes, 1895-96.
,, for Subpœna, 1895-96.
Registrar's Certificates, 1894-95.
Rule Books, 1895-96.
Satisfactions, Index to, 1868-95.
Sheriffs' Oaths and Warrants, 1892-96.
Writs of Summons, 1895-96.

11. From the King's Bench Division (Bankruptcy).

Day List Book (Chief Registrar's), 1886.
,, ,, ,, (or Court Sittings Book), 1886.
Debtors' Summonses, 1884-1886.
Files, Arrangement, 1886.
,, Bankruptcy, 1886.
,, ,, (Trustee), 1885.
Note Books:—
,, ,, Chief Clerk's, 1885-1886.
,, ,, Chief Registrar's, 1885-1886.
,, ,, Deputy Registrar Lloyd's, 1886.
,, ,, Registrar Doyle's, 1885-1886.
Order Books (Unclaimed Dividends), 1862-1873.
Parliamentary Returns (Official Assignees'), 1886.

12. From the King's Bench Division (Probate) Principal Registry:—

Administration Bonds and Papers leading to Grants; Affidavits leading to Citations; Affidavits of Scripts, 1886.
Calendar of Probates and Administrations (England), 1858-68, 1876-86.
,, ,, ,, (Scotland), 1876-86.
Caveat Book, 1885-1886.
Contentious Papers, 1886.
Day Book, 1886.
Fees, Impressed Stamp, Schedules of, 1883-1886.
Grant Books (Probate, Intestate, Wills annexed, Special and Unadministered), 1886.
Grant Books, District (Probates and Intestates), 1886.
Letter Books, 1884-1886.
Matrimonial Cause Papers, 1886.
Order Book, Court, 1886.
,, ,, Registrar's, 1886.
Probate Records, 1886.
Schedules, 1886.
Setting down Causes Book, 1876-1886.
Stamp Office Certificates, 1886.
Will Books, 1886; (District), 1886.
Wills, 1886.
,, (Soldiers'), 1884-1886.
,, (Unproved), 1886.

13. From the Armagh District Probate Registry:—

Caveats, 1886.
Grant Book (Probates, Intestates and Wills annexed), 1886.
Renunciation, 1886.
Wills and Papers leading to Grants of Probate and Administration, 1886. Wills (unproved), 1886.

14. From the Ballina District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

15. From the Belfast District Probate Registry :—

Caveats, 1886.
Grant Book (Probates), 1885-1886.
,, ,, (Special and Unadministered), 1862-1882.
Wills and Papers leading to Grants of Probate and Administration, 1886.

16. From the Cavan District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

17. From the Cork District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

18. From the Kilkenny District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

19. From the Limerick District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

20. From the Londonderry District Probate Registry :—

Grant Book (Intestates), 1878-1886.
Wills and Papers leading to Grants of Probate and Administration, 1886.

21. From the Mullingar District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

22. From the Tuam District Probate Registry :—

Wills and Papers leading to Grants of Probate and Administration, 1886.

23. From the Crown and Peace Office of the County of Armagh :—

Appeals to Assizes; Arms Licence Application Lists; Bills of Sale, Abstracts of, 1885-86.
Camlough Water Works Accounts, 1883-86.
Civil Bill Affidavits, &c., 1883-87.
,, ,, Book, 1884-86; Papers, 1885-6.
Coroners' Inquests, 1885-86; Coroners' Resignation, 1885.
Crown Files at Assizes; Crown Files at Quarter Sessions, 1885-86.
Ejectment Books, 1883-86.
Equity Civil Bill Proceedings, 1878-86.
Jurors' Lists, &c., 1885-86.
Land Law (Ireland) Act, 1881, Papers (Nos. 12-15), 1884-86.
Landlord and Tenant (Ireland), Act, 1870 (and Land Law (Ireland) Act, 1881), Papers, 1885-86.
Lunatic Asylum Licences, &c., 1884-86.
Presentment Books and Papers, 1885-86.
Publicans' Licence Notices and Lists, 1884-86 .
Query Books, 1885, 1886.
Renewal Affidavits, 1884-86.
Solicitors, List of, 1885.
Voters' Registers, Lists, Claims and Objections, &c., 1885, 1886.

24. From the Crown and Peace Office of the County of Carlow :—

Appeals to Assizes, 1885.
,, ,, Quarter Sessions, 1884-85.
Coroners' Inquests; Crown Files at Assizes; Crown and Civil Files at Quarter Sessions, 1885.
Equity Civil Bill Paper, 1884.

25. From the Crown and Peace Office of the County of Cavan :—

Appeals to Assizes, 1886.
Arms Licence Application Lists, 1884-86.
Award—Lough Erne Drainage District, 1885.
Bills of Sale, Abstracts of, 1886.
Civil Bill Book, 1884-86.
,, ,, Papers, 1885-86.
Coroners' Inquests, 1886.
Correspondence, 1885-6.
Criminals, Returns of, 1880-84.
Crown Book at Assizes; Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Ejectment Book, 1884-86.
Grand Jury Secretary's Accounts, 1880-85.
Informations, &c. (Non-Registration of Publicans' Licences), 1885-86.
Jurors' Books, 1886-87.
,, Lists, 1886.
Land Law (Ireland) Act, 1881, Papers; Polling Station, Appointment of Presiding Officer, 1885.
Presentment Books, 1886.
Probate Papers, 1885.
Publicans' Licence Notices and Lists; Renewal Affidavits, 1885-86.
Sessions (Petty) Clerks' Election Papers, 1882-86.
,, ,, Returns of time of holding, 1886.
Voters' Registers (Copy), Lists, Claims, and Objections; Witnesses' Expenses, Cheque Book (Assizes and Sessions), 1885-86.

26. From the Crown and Peace Office of the County of Down :—

Accounts, 1883-86.
Appeals to Assizes, 1886.
Bills of Sale, Abstracts of, 1883-86.
Bye-Laws, 1885, 1886.
Civil Bill Papers; Civil Bill and Ejectment Books; Crown Book at Assizes; Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Equity Records, 1885-86.
Jurors' Books, 1886-87; Lists, 1886.
Lunacy Informations; Maps, Plans, Awards, &c., 1885-86.
Presentment Books and Papers, 1886.
Probate Papers, 1877.
Publicans' Licence Notices, 1885-86.
Query Books; Renewal Affidavits; Voters' Registers and Lists, 1886.
Voters' Register (Boro. of Newry), 1886, and Notice of Appeal Court Order, 1885.

27. From the Crown and Peace Office of the County of Fermanagh :—

Appeals to Assizes, 1883-86.
,, ,, Quarter Sessions, 1884-86.
Cess Collector, Notice for Appointment of, 1884.
Civil Bill Books, 1881-86.
,, ,, Papers, 1883-86.

Convictions, 1882-85.
Coroners' Inquests, 1884-86.
Crown Book at Assizes, 1886.
,, Files at Assizes; Crown Files at Quarter Sessions, 1883-86.
Ejectment Books, 1879-86.
Election Expenses Papers, 1886.
Jurors' Books, 1883-85; Lists, 1883-86.
Land Law (Ireland) Act, 1881, Paper, 1886.
Landlord and Tenant (Ireland) Act, 1870, Book, 1871-81; Papers, 1883-85.
Presentment (Abstract) Book, 1886.
,, Books (Schedules of Applications), 1883-86.
Process Servers' Books, 1878-85; Appointment Papers, 1885.
Protection Order (Married Woman), 1884.
Publicans' Licence Notices and Lists, 1880-86.
Query Books, 1883, 1886.
Renewal Affidavits, &c., 1883-86.
Sessions (Petty) District Papers, 1884-85.
Spirit Licence Registers (Copy), 1879-81.
Trees planted, Affidavit of, 1885.
Valuation Book (General), 1840.
Voters' Registers, Lists, Claims, &c., 1883-86.

28. From the Crown and Peace Office of the County of Galway :—

Appeals to Assizes, 1883-86; Lists of, 1881-86.
,, ,, Quarter Sessions, 1886.
Arms Licence Application Lists, 1876-86.
,, Registration Returns, 1832-1841.
Arrears of Rent (Ireland) Act, 1882, Paper, 1882.
Attorneys' Lists, 1875-86.
Bills of Sale, Abstracts of, 1883-86.
Bye-Laws (Dooros Harbour and Pier), 1855-56.
Civil Bill Book (Probate), 1878-81.
,, ,, Books, 1881-86.
,, ,, Papers, 1884-86.
,, ,, and Ejectment Books (County of the Town) 1850-86.
Constables' (High) Appointment Papers 1879-86.
Convictions, 1880-85.
Coroners' Inquests, 1886.
Criminals, Returns of (Clerk of the Crown), 1876.
,, ,, ,, (Clerk of the Peace), 1875-76.
Crown Books at Assizes (County) 1877-86; (County of the Town), 1879-86.
Crown Books at Quarter Sessions (County), 1870-86; (County of the Town), 1882-6.
Crown Files at Assizes, 1883-86; Quarter Sessions, 1882-86.
Ejectment Books, 1837-86.
,, Civil Bills, 1880-86.
Election Expenses, Requisitions to tax, 1886.
Equity Civil Bill Book, 1878-84; Papers, 1881-6.
Fees Account (Clerk of the Crown), 1831.
,, Accounts (Clerk of the Peace), 1882-86.
,, &c., Receipt Book (Clerk of the Peace), 1877-88.
Fines (Quarter Sessions), List of, 1843-46.
,, Returns, &c., 1884-86.
Fishery Papers, 1887.
Gaol Governor's Bond, 1871.
Jurors' Fines Papers (Clerk of the Crown, 1879-82; (Clerk of the Peace), 1885-86.
Jurors' Returns and Lists, 1871-86.
Jury Panel, 1821.
Land Law (Ireland) Acts, 1881, 1887, Papers, 1881-88.

Landlord and Tenant (Ireland) Act, 1870, Books, 1870-81.
" " " (Ireland) Act, 1870, and Land Law (Ireland) Act, 1881, Papers, 1881-86.
Maps, Plans, Awards, &c., 1848-88.
Polling Districts Books and Papers, 1873-85.
Prisoners' Calendars, 1869-72.
Probate Papers, 1885-86.
Process Servers' Appointment Papers, 1886.
Proclamations, 1837.
Protection of Person and Property Act, Papers, 1881-82.
Protection Orders (Married Women), 1886.
Publicans' Licence Notices, Lists, &c., 1882-86.
Query Books (County), 1883-86.
Renewal Affidavits, 1880-86.
Sessions (Petty) Clerks' Appointment Papers, 1877-83.
Tolls and Customs, Schedule of, 1883.
Town Commissioners' Accounts, 1860-83.
Treasurer's Account Book, 1828.
Trees, Register of, 1794-1809; Affidavits to Register, 1795-1880.
Voters' Registers, Lists, Claims, &c., 1881-86.
Witnesses' Expenses, Certificates, 1881-86, Cheque Blocks (Assizes and Sessions), 1876-86.

29. From the Crown and Peace Office of the County of Kerry :—

Appeals to Assizes; Bills of Sale, Abstracts of; Civil Bill Books and Papers; Criminals, Returns of (Clerk of the Crown and Peace), 1886.
Crown Book at Quarter Sessions, 1878-86.
" Books at Assizes; Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Deeds, 1882.
Ejectment Books, 1886.
Equity Civil Bill Papers, 1886-87.
" Minute Book (Registrar's), 1880-85.
Fishery Papers, 1886.
Jurors' Books, 1886-87.
Malicious Injury Informations; Maps, Plans, &c., Presentment Books and Papers, 1886.
Publicans' Licence Notices and Lists, 1885-86.
Renewal Affidavits; Returns and Correspondence; Solicitors, &c., List of; Witnesses' Expenses, Certificates (Assizes and Sessions), 1886.

30. From the Crown and Peace Office of the King's County :—

Agreement, 1886.
Arms Licence Application Lists, 1885.
Bills of Sale, Abstracts of, 1886.
Civil Bill Papers; Coroners' Inquests, 1885-86.
County Cess Collectors, Letter relating to appointment of, 1886.
Crown Books at Assizes, 1877-86.
" Files " " 1886; at Quarter Sessions, 1885-86.
Equity Civil Bill Papers, 1886.
Fines, &c., Account, 1885.
Jurors' Books, 1886-87; Lists, 1886.
Land Law (Ireland) 1881, Act, Papers, 1885-87.
Presentment (Abstract) Books; Presentment Books; Presentment Papers, 1886.
Publicans' Licence Notices and Lists, 1883-87.
Query Books; Renewal Affidavits, &c., Sessions (Petty) Clerks' Election Papers; Sessions (Petty), Requisition to change period of holding; Voters' Lists, Claims, &c., 1886.
Witnesses' Expenses, Cheque Block Book, 1885-87.

31. From the Crown and Peace Office of the County of Leitrim :—

Affidavits, 1810-48.
Agreements, 1858-78.
Agricultural or County Hall, Rules, &c., 1864-69.
Appeal Books to Assizes, 1867-83.
Appeals to Assizes, 1797-1883.
,, ,, ,, Lists of, 1841-86.
,, ,, Quarter Sessions, 1804-79, and undated.
Arms and Blacksmiths' Register, 1807-23.
,, ,, ,, Registration Papers, 1806-30.
,, Licence Applications, 1843-46.
,, ,, ,, Lists of, 1875-86.
,, ,, Registers, 1843-46.
,, Notification Papers, Certificates, &c. 1831-43.
,, Registration Lists, 1845.
,, Registry and Licence (Court Application) Books, 1841-46.
Arrears of Rent (Ireland) 1882, Act, Book, 1882-83, Papers, 1882-85.
Assistant Barristers' Affidavits (16 and 17 Vic., c. 34), 1855.
Attorneys' Accounts, 1815-71.
,, Affidavits, 1836-48.
,, Lists, Resolutions, &c., 1847-85.
,, Order of Asst. Barrister, suspending, 1846.
Bailiffs' Bonds, 1837.
Bills of Sale, Abstracts of, 1884-86.
Bonds, Recognizances, and Informations, 1821-77.
Buttertasters' Papers, 1815.
Capias Book (Clerk of the Crown), 1817-28.
Census Enumerators' Note Books, 1821.
,, Return Papers, &c., 1820-31.
,, Returns, 1821.
Cess and Labour Rate Arrears Lists and Returns, 1847-56.
Chairman of Quarter Sessions' Affidavit (*re* 16 and 17 Vic., chap. 34), 1862.
Civil Bill (Testamentary) Book, 1873-82.
,, ,, Books, 1809-85.
,, ,, ,, (Judges), 1875-85.
,, ,, Order Book (Substitution of Service), 1879-81.
,, ,, Papers, 1799-1886, and undated.
Clerk of the Peace, Orders discharging fines on, 1808.
,, ,, ,, ,, Papers relating to Office of, 1849-85.
,, ,, ,, Peace's Affidavits, 1821, 1851-5, 1875.
Commission of Inquiry Papers, 1813-16.
Commissioner for acknowledgment of Deeds by Married Women, letter relating to appointment of, 1877.
Constables' (High) Appointment Papers, 1849-82.
,, ,, Bonds, 1844-78, and undated.
Constabulary Papers, 1824-73.
Convictions, Certificates of previous, 1851-73, and undated.
,, Records of, &c., 1805-79.
Convicts' and Offenders' Returns, 1837-67.
Coroners' District and Election Papers, 1847-84.
,, Inquests, 1819-86.
Correspondence (Peace Office), 1815-86.
,, ,, &c. (Crown Office), 1839-85.
County Surveyor's Certificates, 1879-86.
Criminals, Returns of (Crown Office), 1837-86.
,, ,, ,, (Peace Office), 1870-86.
Crown Books at Assizes 1786-1886.
,, ,, ,, ,, (Duplicates and Judges), 1841-84.
,, ,, ,, Quarter Sessions, 1809-79.
,, Files at Assizes 1779-1886, and undated.
,, ,, ,, Quarter Sessions, 1798-1886, and undated.

Deputy Lieutenants' Lists, Oaths, Qualifications, &c., 1832-87.
,, ,, Oaths, Roll, 1832-57.
,, ,, Qualifications, Roll, 1857-94.
Dog Licence Lists, 1885.
Ejectment Books, 1819-85.
,, Papers, 1816-86.
Ejectments, Return of, 1827-33.
Election of Members of Parliament, Indenture of, 1847.
,, Papers, 1830-52.
,, Expenses Papers, 1886.
Equity Book, 1881-84.
,, Civil Bill Lists, 1880-85.
,, ,, ,, Papers, 1878-86.
,, Sessions Book, 1878-85.
Explosives Act Notices, 1875.
Fees Accounts (Clerk of the Crown), 1852-86.
,, and Expenses, Accounts of (Clerk of the Peace), 1841-86.
,, Tables of, 1851.
Fines and Estreats Papers, 1842-77.
,, ,, Penalties Book, 1845-50.
,, Returns of (Petty Sessions), 1829-37.
Fishery Papers, 1848-86.
Freeholders' Affidavits, 1795-1852.
,, Certificates, 1796-1850.
,, Registered, Lists of, 1832-49.
,, Registers, 1795-1850.
,, ,, (Copy), 1813-35.
Freemasons' Memorials, 1839-77.
Gaol Contracts (Bonds, Tenders, &c.), 1821-78.
,, Inspector's Report, 1803.
Grand Jury Panels, 1853-67.
Gunpowder Licence Certificates, &c., 1824-41.
Indictments (Draft), 1843-82, and undated.
Informations, Index to, 1819-21.
Insolvency and Bankruptcy Papers, &c., 1815-75.
Jurors' Books, 1862-85.
,, Fines Papers, 1846-79.
,, ,, ,, (Return of Townlands), 1879.
,, Returns and Lists, &c., 1833-80, and undated.
Jury Issues 1803-40, and undated.
Landed Property (Ireland) Improvement, 1860, Act, Book, 1866-74; Papers, 1861-80.
Landlord and Tenant (1870) Act, Books, 1870-85, Papers, 1870-85, Pass Book, 1871-81.
Land Law (Ireland), 1881, Act, Books, 1881-85, Papers, 1881-86.
Land Purchase Act (1885) Vesting Order, 1886.
Leases and Deed, 1803-32.
Loan Fund Rules, 1819-85, and undated.
Lunacy Informations, 1837-59.
Magistrates' Commissions, 1813-71.
,, Lists, Appointments, Resolutions, &c., 1828-86.
,, Writs of Dedimus, 1825-34.
,, ,, ,, Supersedeas, 1813-40.
,, and Cess Payers' Oaths and Declarations, 1819-85.
Manor Court Papers, 1800-58.
,, ,, Patent, 1675.
Maps, Plans, Awards, &c., 1845-85.
Meeting-house (Religious), Notice to register, 1827.
Militia Commissions, Qualifications, Correspondence, &c., 1843-71.
Miscellaneous Books and Papers, 1807-83.
,, Law Papers, 1825-42.
,, Papers (Papers of Solicitor to Grand Jury), 1827-86.
Oaths of Allegiance, Certificates, 1794-1830.
,, ,, ,, Rolls, Lists, &c., 1796-1851.

Orange Declaration 1848.
Pardon (Free) Grant of, 1810.
Petitions, undated.
,, Memorials, and Affidavits, 1810-67.
Poll Books, 1802-52.
Polling Districts Papers, 1872-85.
Poor Law Commissioners' Orders, &c., 1839-47.
Posting, Orders for (Substitution of Service), 1842-81.
Poundkeepers' Bonds, 1825-57, and undated.
Presentment (Abstract) Books, 1821-86.
,, Books, 1826-86.
,, ,, (Schedules of Applications), 1842-86.
,, Papers, 1771-1886, and undated.
Prisoners' Calendars 1865-78.
Probate and Administration Papers, 1812-84.
Process Servers' Books and Papers, 1843-85.
,, ,, Returns, 1844-79.
Proclamations and Notices, 1842-66.
Protection of Person and Property Act, Papers, 1881-82.
Publicans' Affidavits, 1806.
,, Licence Application and Registry Book, 1848-89.
,, ,, Certificates, &c., 1816-34.
,, ,, Notices, Lists, &c., 1827-86.
,, ,, ,, of Application Lists, 1853-85.
Query Books, 1785-1886.
Recognizance Book, 1817.
Release, 1787.
Renewal Affidavits, &c., 1801-79.
Replevin Papers, 1827-67.
Returns, Orders, and Correspondence (Crown Office), 1835-86; (Peace Office), 1811-86, and undated.
Revenue Police Lieutenants' Oaths, 1829-32.
Sessions (Petty) Clerks' Election Papers, &c., 1859-82; Recognizances, &c., 1851-56.
Sessions (Petty) District Papers, 1828-81.
Shannon Navigation, Resolution of Magistrates concerning, 1848.
Sheriff's Account Book, 1865-71.
Sheriff's Bailiffs appointment papers, 1881.
Stamp Accounts, &c., 1806-10.
Summons and Plaint Papers, 1872-86.
,, to Clerk of the Peace to attend Local Government Board Inquiry, 1877.
Tithe Adjudications, &c., 1833-34.
,, Cases Registers, 1834.
,, Owners' Memorials and Schedules, 1833-34.
,, Petitions, 1842-43.
Tolls and Customs Schedules, 1818-44, and undated.
Treasurers' and Grand Jury Secretaries' Accounts, 1839-85.
,, Bank Book, 1838-41.
,, Election Papers, 1808-76.
,, Papers (Bonds, &c.), 1853-67.
,, ,, (Receiver Master's Authorisations), 1842-78.
Trees, Affidavits to register, 1798-1877.
,, Register of, 1798-1881.
Trespass, Rates of, 1845-53.
Valuation Books, 1842, 1873.
Voters' Lists, 1850-85, and undated.
,, Notices of Application, Lists of, 1844-50.
,, ,, ,, Claims and Objections, 1850-76.
,, Registers (Copies), 1850-85.
,, Registration Papers, 1850-85.
Warrants, 1803-77.
Weighmasters' Oaths and Bond, 1842-59.
Weights and Measures Inspectors' Recognizances, 1835-36.
,, ,, ,, Papers, 1827-67.

Wild Fowl Preservation Papers, 1877-78.
Witnesses' Expenses, 1842-82.
,, ,, (Certificates), 1880-86.
,, ,, (Cheque Block Books) 1839-81; Assizes and Sessions, 1862-85.

32. From the Crown and Peace Office of the County and City of Limerick :—

Appeals to Assizes, 1886.
Arms Licence Application Lists, 1885, 1886.
Bills of Sale, Abstracts of, 1886.
Civil Bill Book (Testamentary), 1878-87.
,, ,, Books, 1884-86; Papers, 1885, 1886.
,, ,, and Ejectment Books 1883-86.
Coroners' Inquests, 1886.
Crown Book at Quarter Sessions, 1879-84; Files, 1885-86.
,, Books at Assizes; Crown Files at Assizes, 1886.
Ejectment Book, 1883-86.
Equity Civil Bill Book, 1882-85; Papers, 1886.
Fines Account (Officers') Book, 1853-76.
Freemasons' and Friendly Brothers' Memorials; Jurors' Books and Lists; Land Law (Ireland) Act, 1881, Papers; Maps, Plans, Awards, &c., Presentment Books, 1886.
Probate Papers, 1885-86.
Protection Order (Married Woman), 1886.
Publicans' Licence Notices and Lists, 1885-86.
Query Books, 1886.
Voters' Lists, &c., 1885.

33. From the Crown and Peace Office of the County and City of Londonderry :—

Appeals to Assizes, 1886.
Arms Licence Application Lists, 1885, 1886.
Civil Bill Books; Civil Bill Papers; Coleraine Harbour Commissioners' Bye-Laws; Crown Book at Assizes; Crown Files at Assizes; Crown Files at Quarter Sessions; Deputy Lieutenant's Qualification, &c., 1886.
Equity Civil Bill Book, Record of Proceedings, 1885-86.
,, ,, ,, Books, 1886.
Grand Jury Bill Book, 1831-87.
Jurors' Books, 1886-87; Lists, 1886.
Loan Fund Rule; Magistrates' and Cess Payers' Declarations and Chairman's Certificates, 1886.
Payment Notes, 1879-83.
Presentment Book (Grand Warrant); Presentment Books and Papers, 1886.
Publicans' Licence Notices, 1885-86.
Renewal Affidavits; Report and Account, Londonderry Gas Light Company, 1886.
Schedule, Londonderry Corporation Waterworks, Waterside extension, circa 1886.
Voters' Registers, Lists, Claims, &c., 1885-87.

34. From the Crown and Peace Office of the County of Longford :—

Civil Bill Books, 1882-86; Papers, 1886.
Coroners' Inquests; Crown Books at Assizes; Crown Books at Quarter Sessions (Chairman's); Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Ejectment Books, 1884-86.
Jurors' Lists; Presentment Books, 1886.
Publicans' Licence Notices and Lists, 1885-86.
Query Books; Renewal Affidavits, 1886
Sessions (Petty) Clerk, Precept for Appointment of, 1887.
Voters' Claims, 1886.

35. From the Crown and Peace Office of the County of Mayo :—

Accounts, 1884-86.
Agreement, &c., 1885, 1886.
Appeal Book to Quarter Sessions (Judge's), 1880-87.
Appeals to Assizes ; Arms Licence Application Lists ; Civil Bill Books, 1885-86.
Civil Bill Papers, 1882-86.
Constables' (High) Appointment Papers, 1885-86.
Coroners' Inquests, 1884-86.
Crown Books at Assizes, 1885, 1886 ; at Quarter Sessions, 1884-86.
Crown Files at Assizes ; Crown Files at Quarter Sessions, 1885-86.
Ejectment Books, 1884-86.
Election Expenses, Accounts, 1886.
Jurors' Books, 1885-87 ; Lists, 1885-86.
Land Law (Ireland) Act, 1881, Books, 1883-86 ; Papers, 1884-86.
Landlord and Tenant (Ireland) Act, 1870, Book, 1880-81 ; Papers, 1884-86.
Lunacy Informations, 1883-85.
Militia Returns ; Presentment Books ; Presentment Books (Schedules) ; Process Servers' Books and Papers, 1885-86.
Publicans' Licence Application (Court) Book, 1885-89 ; Lists and Notices, 1884-86.
Query Books ; Renewal Affidavits ; Returns and Correspondence, 1885-86.
Sessions (Petty) Clerks' Election Papers, 1885.
,, ,, District Papers, 1886.
Trees, Affidavits to Register, 1881, 1886.
Voters' Lists, &c., 1885, 1886.

36. From the Crown and Peace Office of the County of Meath :—

Appeals to Assizes, 1885.
Civil Bill Book, 1883-85 ; Papers, 1885.
Coroners' Inquests ; Crown Files at Assizes ; Crown Files at Quarter Sessions, 1885.
Ejectment Book, 1880-85.
Equity Civil Bill Papers, 1884-86.
Jurors' Lists, 1885.
Magistrates' and Cess Payers' Declarations, &c., 1882.
Maps, Plans, Awards, &c., 1884, 1885.
Presentment Papers, 1881-85.
Query Books ; Renewal Affidavits ; Voters' Registers, Lists, Claims, &c., 1885.

37. From the Crown and Peace Office of the Queen's County :—

Appeals to Assizes ; Appeals to Quarter Sessions, 1886.
Bills of Sale, Abstracts of, 1883-86.
Civil Bill Papers, 1885-86.
Convictions, 1883-86.
Coroners' Inquests, 1886.
Crown Files at Assizes, 1885-86 ; at Quarter Sessions, 1886.
Equity Civil Bill Papers, 1886.
Fishery Papers, 1865, 1871.
Jurors' Books and Lists ; Magistrates' and Cess Payers' Declarations ; Presentment Papers, 1886.
Probate Papers ; Publicans' Licence Notices, 1885-86.
Query Books ; Renewal Affidavits, 1886.
Replevin and Legacy, &c., Book, 1848-86.
Sessions (Petty) Clerk's Election Paper ; District Papers, 1886.
Voters' Registers, Lists, Claims, &c., 1851-86.

38. From the Crown and Peace Office of the County of Sligo :—

Appeals to Assizes; Arms Licence Application List; Bills of Sale, Abstracts of; Civil Bill Books, 1886.
Civil Bill Papers, 1885-86.
Coroners' Inquests; Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Ejectment Book, 1879-85.
Equity Civil Bill Papers, 1884-86.
Fishery Paper, 1886.
Jurors' Books, 1886-87; Lists, 1885.
Land Law (Ireland) Act, 1881, Book, 1881-82; Papers, 1885-86.
Presentment Books and Papers, 1886.
Publicans' Licence Notices, 1885-86.
Query Books; Renewal Affidavits; Sligo Harbour Ratepayers' Lists, &c.; Voters' Lists, Claims, &c., 1886.

39. From the Crown and Peace Office of the County of Tipperary :—

Appeals to Assizes, 1886, Lists of, 1884-86.
Civil Bill Books, 1886; Papers, 1879-86.
Constables' (High) Election Papers and Book, 1859-84.
Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Deed, &c., 1866-67.
Ejectment Book, 1885-86.
,, Processes, 1886.
Gaol Contractor's Bond, 1886.
Jurors' Books, 1886-87; Lists, 1886.
Presentment Papers, 1885-86.
Publicans' Licence Lists, Notices, &c., 1884-87.
Query Book (South Riding), 1884-86.
Renewal Affidavits, 1886.
Sessions (Petty) District Papers, 1865.
Voters' Registers, Lists, &c., 1885-87.

40. From the Crown and Peace Office of the County and City of Waterford :

Appeal Book to Assizes, 1880-86.
Appeals to Assizes; Bills of Sale, Abstracts of, 1886.
Civil Bill Books, 1884-86.
,, ,, and Ejectment Book (Judge's), 1880-85.
Conviction (Summary); Coroners' Inquests, 1886.
Criminals, Returns of, 1861-69.
Crown Book at Quarter Sessions, 1882-86.
,, Books at Assizes, 1885-86.
,, Files at Assizes; Crown and Civil Files at Quarter Sessions, 1886.
Ejectment Books, 1879-85.
Equity Civil Bill Papers, 1886.
Grand Jury Expenditure, 1885-86.
,, ,, Secretary's Accounts, 1886.
Jurors' Books and Lists, 1886.
Land Sessions Court Book, 1870-83.
Landlord and Tenant (Ireland) Act, 1870, and Land Law (Ireland) Act, 1881, Papers; Lunatic Asylum Notice, Plans, &c., 1885-86.
Magistrates' and Cess Payers' Declarations, 1886.
Polling Districts Papers (City), 1885.
Presentment Account Book (City); Presentment Books (Schedules of Applications) (City); Presentment Papers and Rolls; Publicans' Licence Notices, &c., 1886.
Publicans' Licence Registers (County), 1879-85.
Query Book (Check), 1886.
Voters' Registers, Lists, Claims, &c., 1885-86.
,, ,, &c., Agreements and Bonds for Printing, 1881, 1885.

41. From the Crown and Peace Office of the County of Westmeath :—

Appeals to Assizes, 1884-86.
Bills of Sale, Abstracts of, 1883-86.
Civil Bill Papers, 1885-86.
Convictions, 1884-86.
Coroners' Inquests, 1885-86.
Correspondence, 1883.
Crown Books at Assizes; Crown Files at Assizes; Crown Files at Quarter Sessions, 1885-86.
Equity Civil Bill and Lunacy Papers, 1883-86.
Freeholders' Register, 1805-19.
Juror, Affidavit for exemption as, 1886.
Jurors' Books; Magistrates' and Cess Payers' Declarations, &c.; Presentment Books and Papers, 1885-86.
Probate Papers, 1878-86.
Publicans' Licence Notices, &c., 1884-86.
Query Books, 1885-86.
Sessions (Petty), Requisition to alter days of holding, &c., 1885.
Voters Registered, Lists of, 1832.

42. From the Crown and Peace Office of the County of Wexford :—

Appeals to Assizes, 1879-86.
Arms Licence Application (Court) Books, 1843-45; Registers, 1843-46.
Attorneys' Oaths Rolls, 1839-80.
Bills of Sale, Abstracts of, 1883-86.
Civil Bill Books, 1876-86; Papers, 1872-86.
,, ,, and Ejectment Books, 1876-83.
Constables' (High) Election Papers, 1879-80.
Convict Returns, 1853-79.
Convictions; Coroners' Inquests and Certificates, 1879-85.
Coroners' Qualification Papers, 1871.
Criminals, Returns of, 1878-85.
Crown Books at Assizes, 1861-86.
,, ,, ,, Quarter Sessions, 1871-83.
,, Files at Assizes; Crown Files at Quarter Sessions 1879-86.
,, Summonses, Requisitions for, 1869-73.
Deputy Lieutenants' Qualification and Appointment Papers, 1876-84.
Ejectment Books, 1874-85.
,, Processes, 1879-86.
Equity Civil Bill Books, 1883-84.
Fees Accounts (Clerk of the Peace), 1874-83.
Fines and Estreats Book (Quarter Sessions), 1838-41.
Fishery Papers, 1879-86.
Jurors' Books, 1879-87.
,, Fines Papers (Townland Lists), 1879.
,, Lists, 1879-86.
Land Law (Ireland), 1881, Act, Papers, 1881-85.
Landlord and Tenant (1870) Act, Books, 1870-93.
Lunacy Informations, 1871-85.
Magistrates' Appointments, Notices of, &c., 1878-83.
,, Attendance, Returns, &c., 1877-81.
Maps, Plans, Awards, &c., 1883-86.
Militia Returns, 1877-80.
New Ross Bridge, Deed, &c., 1868.
Piers and Harbours Bye-Laws, &c., 1855-56.
Presentment Books and Papers, 1879-86.
Prevention of Crime (Ireland) 1882, Act, Papers, 1882-85.
Process Servers' Appointment Papers, 1880-83.
Protection of Person and Property Act, Papers, 1881-82.
,, Orders (Married Women), 1878-82.

Publicans' Licence Lists (Excise Office), 1873-85; Notices, &c., 1878-86; Register, 1874-85.
Query Books; Renewal Affidavits, 1879-86.
Returns, Orders, and Correspondence, 1878-86.
Rosslare Harbour Commissioners' Accounts, &c., 1873-82.
Sessions (Petty) Clerks' Election Papers, 1880-82.
,, (Quarter) Returns of Prosecutions by Crown Solicitor at, 1870-83.
Sheriffs (Under) Deputies, Appointments, 1884-85.
Solicitors, Lists of, 1879-86.
Voters' Registers, Lists, Claims, &c., 1850-86.
Wexford Harbour Commissioners' Accounts, 1878-83.
Wild Fowl Preservation Papers, 1878.
Witnesses' Expenses, Cheque Block Book, 1881-82.

43. From the Crown and Peace Office of the County of Wicklow :—

Appeals to Assizes; Bills of Sale, Extracts from; Civil Bill Book and Papers, 1886.
Coroners' Inquests; Criminals, Returns of, 1885-86.
Crown Files at Assizes; Crown Files at Quarter Sessions, 1886.
Ejectment Book, 1882-86.
Election Expenses, Accounts and Notice to Tax; Equity Civil Bill Papers, 1886.
Jurors' Books, 1886-87; Lists, 1886.
Land Law (Ireland) Act, 1881, Papers, 1885-86.
Magistrates' and Cess Payers' Declarations, 1886.
Maps, Plans, &c., 1882-86.
Presentment (Abstract) Books; Presentment Books; Books (Schedules of Applications); (Payment) Books; Presentment Papers, Publicans' Licence Notices; Query Books; Renewal Affidavits, 1886.
Returns and Order (Quarter Sessions Towns, and Districts), 1885.
Solicitors, Lists of, 1886.
Voters' Registers and Lists, 1886-87.

44. From Public Record Office, London, Military Commissariat Accounts and Papers (Irish Famine Relief), 1845-52 :—

Accounts (Current) of Local Committees, 1847.
,, of Implements and Stores, 1847-1852.
,, ,, provisions, &c., received and issued, 1846-1849.
Cash Accounts, Classification of, 1845-1848.
,, ,, Observations on, 1846-1851.
,, Books, 1846-1852.
,, ,. Accounts Current, 1846-1847.
Contracts (Bread and Meat), 1847-1852.
,, (Forage and Oats), 1847-1851.
Correspondence, 1847-1850.
,, (Supplementary), 1847-1848.
,, and Cash and Store Accounts, 1845-1846.
Magazine Books (Coast Guard), 1846.
,, ,, (Constabulary), 1846-1848.
,, ,, (Misc.), 1846-1848.
Order Books (Departmental), Com. Genl., 1847-1851.
,, ,, (General), Adj. Genl.'s Office, 1847-1851.
Query Books (Cork Dist.), 1847-1851.
Accounts (Regimental) of Bread and Meat, Schedule of, 1847-1848.
,, of donations issued by the Government, 1846-1848.
,, of Relief Committee, Register of, 1846-1848.
Bank Book (Limerick), 1846-1847.
Board of Surveys (Westport), proceedings of, 1846-1847.

British Relief Association, List of grants issued by, 1847.
,, ,, ,, (Belfast), Register of, 1847.
Clothing transmitted by Government, Account of, 1847-1848.
Contractors Account Books (Cork) Military, 1847-1852.
Donations issued by the Government, Register of, 1846-1847.
Estimates (Military), 1847-1852.
,, (Cork), 1847-1850.
Issues for various depots (Relief Commission), 1847.
,, of provision stores for Military Stations, 1847-1849.
,, on account of the Relief Commission, 1847.
Local Subscriptions and Grants, Register of, 1846-1847.
Military Entry Book (Misc.), 1847-1852.
Military Tenders (Bread, Meat, Forage), Schedules of, 1848-1851.
Mill Account Books, 1846-1848.
Miscellaneous.
Officers and others employed in Com. Relief Service, (Limk.), 1846.
Official Return Books, Estimates and Returns, 1846-1852.
Payments, Classification of, 1849-1852.
Provisions, &c., Grants and Issues, 1847.
Provision Orders, Counterfoils of, 1848-1849.
Seed Account Books, 1847.
Seeds, sacks, bags issued, Account of, 1847.
Shipping Register, 1847-1848.
Ships, Register of arrival of, 1847-1848.
State (weekly) of Killybegs, 1846-1847.
Statements for British Relief Association, 1847-1848.
,, ,, Society of Friends, 1847-1848.
Statement of purchases and shipments of provisions, 1846-1847.
Store Abstracts (Duplicate), Military, 1848-1851.
Tenders, copies of (Westport), Register of Vessels, &c., 1846-1847.
Vessels advised, Register of (Sligo), &c., 1846-1848.

45. Mr. Henry Seymour Guinness has presented :—

Entry Book of Enrolment of Apprentices of the Corporation of Smiths, the Guild of St. Loy, Dublin, 1638-76.

Copy (made in 1651) of Charter of the Corporation of Smiths, Guild of St. Loy, Dublin, 26 March, 14° Edward I.

46. Mr. Henry A. Richey, on behalf of the executrix of the late Dr. J. J. Digges La Touche, presented :—

A volume entitled, "Livre de Caisse pour L'Eglise françoise de Dublin, suivant la Discipline des Eglises Reformées de France, Recullie Proche Ste. Brigide, 1692-1696-7."

Two small books containing entries of Baptisms, Marriages and Burials; apparently those celebrated by the Rev. J. J. Digges La Touche while curate of S. Anne's Church, Dublin, 1824-35.

47. From Estate Duty Office :—Copies of Wills lodged, 1828-1837.

48. From Department of Woods, Forests, and Land Revenues :—399 deeds affecting rights of the Crown were received and registered, the largest number received in any one year. They include 246 duplicate Conveyances of Quit and Crown Rents sold; 15 Conveyances of Crown reversions, etc., and 138 Certificates of apportionment of rent under the Irish Land Act of 1903.

49. The following donations have been received for the Library :—

From the Master of the Rolls in England, nine volumes of Record publications.

From the Keeper of the Records in Scotland, two volumes of Record publications.

From the British Museum, Calendar of Additional MSS., one volume.

From Mr. E. R. M'Clintock Dix, Auction Sale Catalogues of Mr. John W. Sullivan, Literary Auctioneer, Dublin, ten volumes, 1881-92.

From the author, "The Story of Dublin," by Mr. D. A. Chart.

Other volumes were presented by Captain Sydney Cary, Mr. P. G. Mahony, and the Commissioners of Woods, Forests and Land Revenues.

Search Room Business.

50. The stamps for fees on copies and inspections of Records by the public, and on attendances in court during the year 1907 amounted to £1,099 9*s*.

	£	*s*.	*d*.
Inspections (3,211), ...	160	11	0
Copies, at 1*s*. (1,285 folios), ...	64	5	0
,, at 6*d*. (33,924 folios), ...	848	2	0
,, Maps, ...	21	15	0
,, countermanded before Examination, ...	0	12	0
Attendances (2), ...	4	4	0
	£1,099	9	0

51. Fees to the amount of £40 16*s*. 6*d*. have been remitted on attendances and on copies bespoken by Public Departments for the public service.

52. Inspections and searches, on behalf of Public Departments, have been made without fees, as follows :—

Quit Rent Office, ...	1,370
Land Judges Office, ...	237
Ulster King of Arms, ...	171
King's Bench Office (Probate), ...	65
King's Bench, ...	56
Chancery Offices	42
General Register Office, ...	33
Board of Works, ...	21
Crown and Treasury Solicitor for Ireland, ...	19
Bankruptcy Office, ...	18
Congested Districts Board, ...	10
Other Offices, ...	34
	2,076

This number is very greatly in excess of the number of searches for Public Departments in any previous year.

53. Two hundred and eighty-two certificates were granted for examination of Records for Literary purposes. Under these 6,029 volumes or files of Records were produced for literary readers, a larger number than in any previous year.

Arrangement and Preservation of Records.

54. The examination and arrangement of the contents of miscellaneous sacks from the former Landed Estates Record Office, Custom House, has been continued. The contents of 36 sacks have been arranged during the year.

55. The Bills of the Equity side of the Court of Exchequer, 8 Oct., 1708, to 8 May, 1711, 36 parcels, and 73 parcels of Answers, 14 May, 1707, to 16 July, 1712, have been checked, arranged, and parcelled.

56. The Crown and Peace Office Records of the several counties received during the year have been classified, arranged, stamped, and catalogued. The increment of Wills and Testamentary and Administration papers for 1886 has been checked, stamped, and put up in 85 zinc boxes. Sixty-one bundles of King's Bench Warrants to enter and satisfy Judgments, 1693-1837, have been arranged and parcelled. Fifty-seven bundles of Landed Estates Court Conveyances, 1851-4, have been checked and numbered. One hundred and sixty bundles of Affidavits of the same court have been stamped.

57. Eighty volumes of Records have been re-bound. The binding of the Census returns has been commenced for those of the 1841 Census. Twelve Patent Rolls, and 30 other Records have been repaired.

Indexing and Calendaring.

58. The Revision of the Catalogues of Records with a view to the preparation of a general Guide to the Records (Rep. xxxiii., par. 15), has been continued by Mr. Wood, for the Rolls Office and Hanaper Office, Chancery, the Tipperary Palatinate records, and the Council Office.

59. The Calendar of Inquisitions for County Limerick (Rep. xxxviii., par. 63) has been continued by Mr. M'Enery to the reign of James I.

60. The Index to Chancery Side Bar Orders, 1858-75, has been completed. Further progress has been made on the Index to Chancery Orders, 1840-56. Vice-Chancellor's Order Book, vol. 29, has been indexed. The index to Administration Bonds, diocese of Down, is being revised, in consequence of the finding of a large number of misplaced Bonds.

61. The Index of Wills of the Prerogative Court, 1536-1811, prepared by the Irish Record Commission, having been found to need revision, a re-examination of the Wills has been commenced, and continued for letters A and B.

Printing of Calendars, Indexes, and Records.

62. The first volume of the Statutes of Ireland (Report xxxii., par. 80) was published during the year; and considerable progress made with a second volume. The entire text of a second volume of the Calendar of the Justiciary Rolls of Edward I. was in the printer's hands at the end of the year, and a large part of the work was in type.

63. An Index to the 31st to 40th Reports of the Deputy Keeper of the Records in Ireland, prepared by Mr. Langman, is added as an Appendix to this Report. This Index includes references to the Accounts contained in the Pipe Rolls, catalogues of which from Henry III. to 10 Edward II. were printed as appendices to Reports xxxv. to xxxix.

64. The publication of the maps of the Down Survey of Ireland, made 1655-9, has been on more than one occasion urged on the attention of Government. The extent and cost of the reproduction and the very imperfect state of the Record Series of Maps of the Survey has hitherto prevented the work from being carried out. The results of the Down Survey were at first laid down on large protractions, each representing a barony, on the scale of 40 perches to the inch. From these originals several series of maps were drawn. The set supplied for official purposes of the Surveyor-General's Office consisted of a series of maps of the parishes which contained forfeited lands, usually on the scale of the original protractions, with index maps for each barony on a more or less reduced scale. Two or three other sets of the Barony Maps seem to have been prepared on the scales used for the barony index maps of the official set. On these were inserted most of the details contained on the Parish Maps deposited in the Surveyor-General's Office. Of these sets of barony maps one certainly remained in the possession of Sir William Petty until his death; and a second was probably retained for his personal use by Sir Thomas Taylor, deputy surveyor-general at the Restoration.

Of these maps there are now in this office (1) such of the original protractions as are known to survive; (2) the maps and fragments of the Surveyor-General's official set which escaped the fire of 1711; (3) a portion of the incomplete Taylor set received from the Quit Rent Office, and which were purchased from the representatives of Sir Thomas Taylor by the Commissioners of Woods and Forests in 1837.

The only set of maps made from the Down Survey which remains proximately complete is that of Sir William Petty himself. It is related that this set, while being conveyed from Ireland to London in 1710, was captured by a French privateer, conveyed to Paris and deposited in the Bibliotheque Royale. Here they were discovered in 1786 by Col. Vallancey, by whose instrumentality copies were subsequently made which are still preserved in this office.

The attention of your Excellency's Government was recently directed to these original maps of Sir William Petty at Paris. At your Excellency's instance, through His Majesty's

Ambassador at Paris, the French Government gave permission for the temporary removal of the maps to Southampton for photographic reproduction at the office of the Ordnance Survey. This has been done during the past year, and the facsimiles of these maps can now be obtained by the public through the Agents for the sale of Ordnance Survey Maps.

Proceedings under Parochial Records Acts.

65. The Registers of Baptisms, Marriages, and Burials of four parishes became attachable under 38 & 39 Vic., c. 59, by death or resignation of incumbents in office in 1870; and warrants were signed by the Master of the Rolls for their transfer to this office. A warrant for transfer was also issued in another case (Ballyadams), where the records remained in local custody under Retention Order, but where the provision for the safety of the Records had become unsatisfactory.

66. The Records of the following Parishes have been received :—

Parish.	County.	Vols.	Baptisms.	Marriages.	Burials.
Ballyadams, ...	Queen's ...	4	1791-1904	1793-1870	1792-1906
Baltinglass, ...	Wicklow, ...	1	1831-51	1831-44 1849-67	1831-76
Castleventry, ...	Cork, ...	1	1825-72	1825-44	1830-70
Glengarriff, ...	Cork, ...	1	1863-1907	—	—

An Order for the retention of the Records in local custody under 39 & 40 Vic., c. 58, has been made in the case of Lis naskea.

67. Books of the following parishes, in custody of the Incumbents, have been re-bound in this office :—S. Peter, Drogheda; Currin, Eglish, Galloon, Kiltoghart.

68. Continued complaints are received of the difficulty of making searches in parochial records remaining in local custody. Some who have applied to Incumbents by letter complain that they can obtain no reply. Others who have made application in person, have failed to find the custodian of the books, have been refused permission to search the books, or have been deterred by heavy fees. Three cases were reported during the year in which applicants were informed that there were no books of the required date, though in each case the books wanted should have been in the parish safe, and were found by the Incumbent on representations from this office. The number of clergy of whom such complaints have been made form a very small proportion of those who are charged with the care of Records. Still the complaints are sufficiently numerous to point to the continued retention of the older Parish Registers in local custody as being very undesirable.

69. Further evidence of the existence of Parish Registers not in legal custody has been furnished by the publication in the Journal of the Association for the Preservation of the Memorials of the Dead, Ireland, of extracts from a lost register of the Parish of Cloncha, of much earlier date than the register returned to this office. The lost book had passed out of the hands of the Parish Clergyman before the transfer of the books to this office. The gentleman who supplied the extracts is dead, and I have failed as yet to obtain any information as to the present whereabouts of the book from his representative.

70. Mr. John G. Usher returned to this office a Register of the parish of Baltinglas, 1831-76, which, having been removed from the proper custody before the appointment of the late Incumbent, was returned to him after the transfer of the Records of the Parish to this office.

State Paper Office.

71. The Government Papers received during the year 1907 include Chief Secretary's Office registered papers for 1897 (69 boxes), and Register and Index for 1895; Civil Affairs Book, 1847-54; Papers as to appointment of Governors of Lunatic Asylums, 1881-4; Papers of Commission of Enquiry, Department of Agriculture and Technical Instruction.

72. The Registered Papers have been checked and put up in cartons Nos. 4161 to 4206.

73. A system of electric lighting has been installed throughout the Tower and offices. The hot water heating apparatus has been renewed and made more efficient.

74. The searches for Government Departments during the year numbered 558.

75. The Calendar of Official Papers, 1790-1831 (referred to in Reports iv., pp. 24-5, and xxxviii., par. 76), has been advanced from carton 337 to 377 (sub-head Miscellaneous).

76. The General Catalogue of the contents of the Tower has been completed for all except Room VIII.

All which is humbly submitted to your Excellency as my Report.

Dated at the Public Record Office, Dublin, this 28th day of August, 1908.

JAMES MILLS,
Deputy Keeper of the Records and Keeper of the State Papers in Ireland.

I humbly certify to your Excellency that this Report is made by the Deputy Keeper of the Records, under my direction, pursuant to the Statute.

R. E. MEREDITH, *M.R.*

APPENDIX.

Report of Mr. A. E. Langman on Records in Sacks transferred from former Landed Estates Record Office in the Custom House, Dublin.

The examination of the sacks containing the papers of earlier date has been completed. They were found to contain the following classes, which have now been arranged and put up:—

Warrants, 1602-1813.

These form a very large collection and are mostly Government authorisations for payments on the establishment; in the great majority of cases for military purposes. Among the earlier warrants are a number issued by the Lord President of Munster. During the Commonwealth period a large number of warrants were issued by Commissioners of Revenue for the various provinces and precincts: among them are to be found some for the payment of fixed sums for the killing of wolves (*vide* Prendergast, Cromwellian Settlement of Ireland, pp. 309 *et seq.*)

Warrants (*with King's and Queen's Letters*), 1621-1837.

Government authorisations for payments not on the establishment, but specially sanctioned by King's or Queen's Letter; of these Letters in most cases only copies are found in this collection; but in the earlier years some originals are attached to the warrants.

Warrants (*Letters of Concordatum*), 1601-1795.

Authorisations by Lord Lieutenant and Council for payments out of the fund styled Concordatum, so called from the fact that the earlier Warrants and Orders of the Privy Council began "It has been agreed"; equivalent to the earlier Latin form, "Concordatum, &c."

Wine Warrants, 1600-1790.

By the Statute 11 Eliz., Sess. 4, c. 1, § 5 the Lord Deputy had full power to limit and appoint to all peers and privy councillors such quantity of wines as he should think fit according to their degree, free of customs or subsidy. By an order of 1 April, 1618, this power was restricted to five hundred pounds. By 14 and 15, Ch. II., c. 9, § 16 this restriction appears to have been removed, and the statute of 1569 restored.

Warrants to pay Chief Constables, 1789-1808.

Under 27 Geo. III., c. 40, § 10, payments of salary to Chief Constables were only authorised on the certificate of the Justices of the Peace: the certificates are put up with the Warrants.

Miscellaneous Warrants include—

Warrants for particulars of lands compounded for, 1634-41 (Commission for Defective Titles); 1658-9; 1684 (Commission of Grace). These warrants are directed to the Surveyor General.

Warrants (*Commissioners of Navigation Act*), 1744-1784: these Commissioners were first appointed under 2 Geo. 1, c. 12.

Warrants (*Commissioners for making wide and convenient streets in Dublin*), 1782-1794: these Commissioners were first appointed under 31 Geo. 2, c. 19.

Warrants (*Trustees of Linen Manufactures*), 1709-1789: these Trustees were appointed under 9 Anne, c. 3, § 3, and subsequent acts, a list of which is contained in the preamble to 19 Geo. 2, c. 6.

Warrants (*Lord Chancellor*), 1656-1709, directed to the Clerk of the Crown and Hanaper for paying Incidental Expenses of the Court of Chancery; among others to the Prebendaries and Vicars of Christ Church for the rent of the Chancery Chamber.

Warrants (*Barons of the Exchequer*), 1611-1692, for payment of ten shillings to the Vicars Choral of Christ Church for "doing homage to his Majestie" or "performing their duties in the usual manner."

Warrants (*Commissioners of Accounts*), 1618-1712, for paying allowances to officials connected with stating the accounts.

Warrants (*Master-General of the Ordnance*), 1704-5, for payment of expenses connected with the Ordnance, directed to the Paymaster of the Train of Artillery.

Warrants (*Palatines*), 1710.

Warrants (*Commissioners of H. M. Treasury in Ireland*), 1671-4: orders to Deputy Receiver-General to accept bills to make payments under Act of Explanation: also 1689—in part payment of general warrants.

AUDITOR-GENERAL'S LETTER BOOK, 1794-5.

TREASURY PAPERS.

Letters to Auditor-General directing issues on unsatisfied orders, 1795-1814.

Treasury Warrants for issue of Orders and Debentures, mostly pursuant to Acts of Parliament, 1794-1815.

Government Warrants for issues on Vote of Credit, 1795-1814, directed to Commissioners of Treasury to make payments out of any sums applicable to Votes of Credit.

Treasury Warrants for issue of Concordatum, 1796-9.

Notifications from Lord Lieutenant to Auditor-General of appointments and other charges, 1783-1800 and 1814-5.

Correspondence concerning Establishments and Estimates, 1781-1807.

Treasury Letters, 1799-1805.

Informing Auditor-General that the Teller of H. M. Exchequer has been directed to receive certain sums over-issued to agents.

ORDERS ON COLLECTORS, 1659-1803.

Among these are to be found orders for payment of witnesses and counsel at Assizes, 1698; orders by Commissioners of Land Tax to pay Clerks' fees, 1700-1; payments for supplying lighthouses with fires; for postage; incidents, 1787-8, including travelling charges; sick allowances; allowances for house rent, &c.; also orders on the Cashier of Forfeitures.

JUDGES' LODGING MONEY, 1802-22.

Orders of High Sheriffs on Treasury for payment of money for lodging the Judges on Circuit.

INSTRUCTIONS TO PAY SALARIES AND PENSIONS, 1780-1802.

These are applications endorsed with authorisation of the Treasury to the Auditor-General to issue the salaries and pensions in question.

CONCORDATUM ORDERS, 1802-13.

Drafts on Auditor-General.

LETTERS AUTHORISING ISSUE OF DEBENTURES, 1721-1793.

Letters from the Lord Lieutenant to the Auditor-General for payment of salaries and pensions by debentures.

DEBENTURES, 1595-1802.

Receipts for payment of salaries and allowances: a very large collection.

DEBENTURES (*Regimental*), 1697-9.

For payment of arrears to date of discharge or disbandment.

DEBENTURES *for arrears of Army*, 1673-4.

Issued by Commissioners for stating the Accounts of the Army, and consisting of separate debentures not only for the officers, but also for the private soldiers of the various troops and companies. A large collection.

ENTRY BOOKS OF DEBENTURES, 1610-1711.

Some of these are fragmentary, but the volume for 1685-1703 contains, among others, a complete list of debentures issued for the officials of the Four Courts.

COMMONWEALTH DEBENTURES.

Certificates of amount due upon composition and agreement for arrears for service in Ireland. Such amount to be satisfied "out of the Rebels" lands, or "others in the dispose of the Commonwealth."

DEEDS OF SALE OF DEBENTURES, 1655-7.

Deeds conveying Debentures for arrears of service under Commonwealth, a large number being to Major Thomas Davis.

CERTIFICATES OF '49 OFFICERS, 1672-3.

Stating amount payable by drawing of lots, in lieu of arrears to officers of the army in 1649, with Treasury order for payment endorsed.

TRANSPORT DEBENTURES, 1695-1702.

Debentures made under several Acts of William III. for interest of the debt due to ships employed on Transport service.

LICENCES OF ABSENCE, 1709-1800.

Sanction of payment of salary or pension notwithstanding absence from the kingdom, with notification to Auditor-General.

LIBERATES, 1602-1672.

Writs for payments of yearly pensions or sums of money granted under the Great Seal, directed to the Vice-Treasurer.

ACCOUNTS.

These have been arranged as nearly as possible in three periods: pre-Commonwealth, Commonwealth, and subsequent dates.

Among the earlier records, a list of which is set out in the detailed Search Room entry books, will be found Exchequer Receipt Books; Accounts of Remembrancers, Commissaries of Victuals, Receivers-General, Farmers of Customs, etc.; various accounts of building and repairing storehouses, forts or ships—among these are interesting references to the beginning of the work at Haulbowline, and to repairs at the house of the Phœnix; customs charges; collectors' accounts; accounts of expenses for 'several daies of Tryumphe'; also lists of fines and amercements (mostly fragmentary); receipt rolls of 3 Edw. VI.; and various rent rolls and surveys.

Commonwealth accounts chiefly consist of Impost books; port, customs and excise accounts; military ledgers, stores and provision accounts; some bundles of military accounts; muster rolls, charges, &c., relating to the forces at Inverloughy; lists of arrears due to soldiers; accounts of works done; repairs to buildings, &c.; rent rolls; a book of leases, and papers relating to rents and surveys.

In the later period there is a collection of Subsidy, Hearth Money and Poll Tax Rolls (mostly fragmentary); surveys and rent rolls; also a large collection of papers relating to Quit and Crown Rents; Exchequer receipt books; various account books: revenue, district, and port accounts arranged according to the respective ports and districts; fees on Army Commissions; papers relating to fees of law officers, &c.; abstracts of national accounts, and abstracts of receipts and payments into Treasury office.

Subsequent to 1660, military papers have been arranged in a separate series; before 1794 the collection is very miscellaneous, including orders of Commissioners for Militia, directing payment out of the subsidies for supply of pistols, &c., for arming the Militia; Ledger Books; Account Book of King James' Army, 1689.

From 1794 to 1816 a more regular and very large series of accounts exists, mostly of a regimental nature.

Under the head of military papers may be included States of the Army and Militia in Ireland, 1794-1816, and Monthly Returns (Yeomanry), 1796-1802. These yeomanry returns contain the names of all members of the corps, both officers and men. Also baggage certificates, 1708-1818, and official correspondence.

COMMISSIONERS FOR STATING THE ACCOUNTS OF THE ARMY IN IRELAND, 1689-96.

This is a large collection dealing with the financial problems left by the war, and comprises seventy-five bundles divided into the following classes:—

Lists of debts due by soldiers and officers of various regiments, with creditors' names. Certificates of debts charged to regimental accounts. Petitions and Regimental accounts. Hospital Accounts. Entry Book of Accounts. Miscellaneous Papers; and Bills, Supplies, and Receipts.

Other classes of accounts are Customs and Excise Accounts, 1822-1837; Sundry Private Accounts, 1660-1796; Constats and Sheriffs' Accounts, 1543-1811; a large number of receipts and acquittances, and also a collection of papers connected with Mr. John Bayly, who was an agent for military purposes, c. 1724-52.

BONDS, 1639-1779.

A miscellaneous collection, including bonds of Custom House officers, and a large number of bonds of Michael Mitchell, Merchant, of Dublin, about the end of the seventeenth century.

PETITIONS AND MEMORIALS for payment of sums due, 1619-1818.

CORONERS' INQUESTS, 1632-40.

ESTABLISHMENTS, 1666-1763.

FRENCH PENSIONERS, 1691-1822.

A collection of papers referring to French Pensioners, including certificates of life and death; and certificates that the pensioners have no other means of subsistence; lists of pensioners (including other than French), and licences of absence.

PARLIAMENTARY PAPERS.

Including copies of Acts of Parliament, Orders, Votes and Resolutions of the Houses of Parliament.

COMPENSATION PAPERS *for Boroughs abolished by the Act of Union* 40 *Geo. III.*, *c.* 34 *Ir.*

LEGAL PAPERS.

These include Orders of Composition, 1637-9; Deeds, Copy and Draft Deeds, 1598-1790; Petitions, Affidavits, Orders of Reference to Auditor-General and Reports; Ecclesiastical Deeds and Leases; Miscellaneous Orders; Jury Lists, *c.* 1698; Copy Judgments for Enrolment, Briefs, Notes, Costs, &c.

LETTERS.

Among these are the correspondence of members of the Jocelyn family; of John Goodwyn, of Chas. Dering, and Lewis Jones, Auditors-General. These are arranged separately, but the miscellaneous correspondence (1652-1820) includes letters to Geo. Clark, Secretary at War, *c.* 1690; William Robinson, Commissioner for Stating Accounts and

Paymaster of His Majesty's forces in Ireland, *c.* 1697; Michael Mitchell, Merchant; and Captain William Dobbin, Secretary to Commissioners of Management of the forfeited Rebels' Estates, &c., of Ireland, 1690, and later Commissioner for Stating Accounts; also some interesting letters from one Pulteney, c. 1698, about political and social affairs, with no endorsement, but probably directed to Chas. Dering.

Miscellaneous Official Correspondence, 1772-1806.

Applications, &c., for payment of pensions and salaries, 1795-1822.

Mostly letters to bankers and agents authorising them to receive payment.

Maps.

A few, chiefly ecclesiastical, and of the diocese of Armagh.

Cancelled Government Debentures, 1715-1823.

This is a very large class, consisting of Certificates of Debentures issued by Government, subsequently cancelled on Redemption or conversion into Stock. The names of the holders, the amount, and the nature of the loan are shown in the Certificates; the great bulk of which range between 1786-1806.

There were also found four Fiants of the reigns of Elizabeth, James I. and Charles I.; an Exchequer Inquisition of 1590; and a number of Chancery pleadings, ranging from 1587 to 1683. These have been put up in their proper places.

A Commission to James M'Carty to serve as Lieutenant in William III.'s army, signed G. Prince d'Orange, 5 Feb., 1688/9, during the Interregnum, was found and placed in the show case.

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ROYAL COMMISSION ON SEWAGE DISPOSAL.

FIFTH REPORT

OF

THE COMMISSIONERS

APPOINTED TO INQUIRE AND REPORT WHAT METHODS OF

Treating and Disposing of Sewage

(INCLUDING ANY LIQUID FROM ANY FACTORY OR MANUFACTURING PROCESS)

MAY PROPERLY BE ADOPTED.

METHODS OF TREATING AND DISPOSING OF SEWAGE.

REPORT.

Presented to both Houses of Parliament by Command of His Majesty.

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Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith: To Our Right Trusty and Right Well-beloved Cousin, Walter Stafford, Earl of Iddesleigh, Companion of Our Most Honourable Order of the Bath; Our Trusty and Well-beloved Sir Richard Thorne Thorne, Knight Commander of Our Most Honourable Order of the Bath, Medical Officer of the Local Government Board; Our Trusty and Well-beloved Constantine Phipps Carey, Esquire, Lieutenant-Colonel and Honorary Major-General on the Retired List of Our Army; Our Trusty and Well-beloved Charles Philip Cotton, Esquire; Our Trusty and Well-beloved Michael Foster, Esquire, Master of Arts, Professor of Physiology in Our University of Cambridge; Our Trusty and Well-beloved Thomas Walter Harding, Esquire, Retired Lieutenant-Colonel of Our Auxiliary Forces, with Honorary Rank of Colonel; Our Trusty and Well-beloved Thomas William Killick, Esquire; Our Trusty and Well-beloved William Ramsay, Esquire, Professor of Chemistry, University College, London; and Our Trusty and Well-beloved James Burn Russell, Esquire, Doctor of Medicine, Master of Surgery: Greeting!

Whereas We have deemed it expedient that a Commission should forthwith issue to inquire and report:

1. (1) What method or methods of treating and disposing of sewage (including any liquid from any factory, or manufacturing process) may properly be adopted, consistently with due regard for the requirements of the existing law, for the protection of the public health, and for the economical and efficient discharge of the duties of local authorities; and

   (2) If more than one method may be so adopted, by what rules, in relation to the nature or volume of sewage, or the population to be served, or other varying circumstances or requirements, should the particular method of treatment and disposal to be adopted be determined; and

2. To make any recommendations which may be deemed desirable with reference to the treatment and disposal of sewage;

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, have authorised and appointed, and do by these Presents authorise and appoint, you, the said Walter Stafford, Earl of Iddesleigh, Sir Richard Thorne Thorne, Constantine Phipps Carey, Charles Philip Cotton, Michael Foster, Thomas Walter Harding, Thomas William Killick, William Ramsay, and James Burn Russell to be Our Commissioners for the purposes of the said Inquiry.

And, for the better effecting the purposes of this, Our Commission, We do by these Presents give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And We do by these Presents authorise and empower you, or any three or more of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid.

6225—I. 3,500—Wt. 9302. 9/08. Wy. & S. 3562*r*.

And We do further by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any three or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And We do further ordain that you, or any three or more of you, have liberty to report your proceedings under this Our Commission from time to time, if you shall judge it expedient so to do.

And Our further Will and Pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any three or more of you, your opinion upon the matters herein submitted for your consideration.

And for the purpose of aiding you in such matters, We hereby appoint Our Trusty and Well-beloved Frederick James Willis, Esquire, to be Secretary to this Our Commission.

Given at Our Court at St. James's, the Seventh day of May, One thousand eight hundred and ninety-eight, in the Sixty-first Year of Our Reign.

By Her Majesty's Command,
(Signed) M. W. Ridley.

William Henry Power, Esq., f.r.s.,
To be a Member of the Royal Commission on Sewage Disposal.

VICTORIA R.

Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith: To Our Right Trusty and Well-beloved William Henry Power, Esquire, Fellow of the Royal Society, Medical Officer of the Local Government Board: Greeting!

Whereas We did, by Warrant under Our Royal Sign Manual, bearing date the Seventh day of May, One thousand eight hundred and ninety-eight, appoint Our Right Trusty and Right Well-beloved cousin Walter Stafford, Earl of Iddesleigh, Companion of Our Most Honourable Order of the Bath, together with the several Gentlemen therein mentioned, or any three or more of them, to inquire into the treatment and disposal of sewage.

And whereas One of the Commissioners so appointed, namely, Sir Richard Thorne Thorne, has since deceased.

Now know Ye, that We, reposing great confidence in you, do, by these Presents, appoint you, the said William Henry Power, to be one of Our Commissioners for the purpose aforesaid, in the room of the said Sir Richard Thorne Thorne, deceased, in addition to, and together with, the other Commissioners whom we have already appointed.

Given at our Court at Saint James's, the Seventh day of February, One thousand nine hundred, in the Sixty-third Year of Our Reign.

By Her Majesty's Command,
(Signed) M. W. Ridley.

Whitehall, March 18th, 1901.

THE KING has been pleased to issue a Commission, under His Majesty's Royal Sign Manual, to the following effect :—

EDWARD R.

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland King, Defender of the Faith, to all to whom these Presents shall come, Greeting !

Whereas it pleased Her late Majesty from time to time to issue Royal Commissions of Inquiry for various purposes therein specified :

And whereas in the case of certain of these Commissions, namely, those known as—

The Historical Manuscripts Commission ;
The Horse Breeding Commission ;
The Local Taxation Commission ;
The Port of London Commission ;
The Salmon Fisheries Commission ; and
The Sewage Disposal Commission ;

the Commissioners appointed by Her late Majesty, or such of them as were then acting as Commissioners, were, at the late demise of the Crown, still engaged upon the business entrusted to them :

And whereas We deem it expedient that the said Commissioners should continue their labours in connection with the said enquiries notwithstanding the late demise of the Crown :

Now know Ye, that We, reposing great trust and confidence in the zeal, discretion, and ability of the present members of each of the said Commissions, do by these Presents authorise them to continue their labours, and do hereby in every essential particular ratify and confirm the terms of the said several Commissions.

And We do further ordain that the said Commissions do report to Us under their hands and seals, or under the hands and seals of such of their number as may be specified in the said Commissions respectively, their opinion upon the matters presented for their consideration ; and that any proceedings which they or any of them may have taken under and in pursuance of the said Commissions since the late demise of the Crown, and before the issue of these Presents shall be deemed and adjudged to have been taken under and in virtue of this Our Commission.

Given at Our Court at Saint James's, the fourth day of March, One thousand nine hundred and one, in the First Year of Our Reign.

By His Majesty's Command,
(Signed) CHAS. T. RITCHIE.

THOMAS JOSEPH STAFFORD, F.R.C.S.I.,
To be a Member of the Royal Commission on Sewage Disposal.

EDWARD R]

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, To Our Trusty and Well-beloved Thomas Joseph Stafford, Esquire, Fellow of the Royal College of Surgeons of Ireland, Medical Commissioner of the Local Government Board for Ireland: Greeting!

Whereas Her late Majesty Queen Victoria did by Warrant under the Royal Sign Manual bearing date the Seventh Day of May One thousand eight hundred and ninety-eight, appoint Our Right Trusty and Right Well-beloved Cousin, Walter Stafford, Earl of Iddesleigh, Companion of Our Most Honourable Order of the Bath, together with the several Gentlemen therein mentioned, to be Commissioners to inquire into the treatment and disposal of Sewage.

And whereas one of the Commissioners so appointed, namely, Our Trusty and Well-beloved Charles Philip Cotton, Esquire, hath humbly tendered unto Us his resignation of his appointment as one of the said Commissioners:

Now know Ye, that We, reposing great confidence in you, do by these Presents appoint you, the said Thomas Joseph Stafford, to be one of Our Commissioners for the purpose aforesaid, in the room of the said Charles Philip Cotton, resigned, in addition to and together with the present Members of the Commission.

Given at Our Court at Saint James's, the Seventh day of May, One thousand nine hundred and two, in the Second Year of Our Reign.

By His Majesty's Command.
(Signed) CHAS. T. RITCHIE.

REGINALD ARTHUR TATTON, ESQUIRE,
To be a Member of the Royal Commission on Sewage Disposal.

EDWARD R & I.

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, To Our Trusty and Well-beloved Reginald Arthur Tatton, Esquire, Greeting!

Whereas Her late Majesty Queen Victoria did by Warrant under the Royal Sign Manual bearing date the Seventh Day of May, One thousand eight hundred and ninety-eight, appoint Commissioners to inquire into the treatment and disposal of Sewage.

And whereas a vacancy has been caused in the body of the Commissioners appointed as aforesaid by the death of Major-General Constantine Phipps Carey, C.B.

Now know Ye, that We, reposing great confidence in you, do by these Presents appoint you, the said Reginald Arthur Tatton, to be one of Our Commissioners for the purpose aforesaid, in the room of the said Constantine Phipps Carey, deceased, in addition to and together with the present Members of the Commission.

Given at Our Court at Saint James's, the Seventh day of January, One thousand nine hundred and seven, in the Sixth Year of Our Reign.

By His Majesty's Command.
(Signed) H. J. GLADSTONE.

REPORT.

To The King's Most Excellent Majesty:

We, the Commissioners appointed to inquire and report:—

I.—(1) What method or methods of treating and disposing of sewage (including any liquids from any factory or manufacturing process) may properly be adopted, consistently with due regard for the requirements of the existing law, for the protection of public health, and for the economical and efficient discharge of the duties of local authorities; and

(2) If more than one method may be so adopted, by what rules, in relation to the nature or volume of sewage, or the population to be served, or other varying circumstances or requirements, the particular method of treatment and disposal to be adopted be determined; and

II.—To make any recommendations which may be deemed desirable with reference to the treatment and disposal of sewage,

humbly report as follows: –

INTRODUCTION.

1. In this our fifth Report, we propose chiefly to deal with the relative merits of the various methods which are available for the purification of sewage of towns. In a subsequent report we shall deal with the various methods which are available for the purification of trade effluents, when not mixed with sewage.

2. The subject of sewage disposal has been inquired into by the following Committees and Commissions:—

1857. Commission to inquire into the best mode of distributing the sewage of towns and applying it to beneficial and profitable uses.

1862. Select Committee of the House of Commons to inquire into the best means of utilising the sewage of cities and towns of England, with a view to the reduction of local taxation and the benefit of agriculture.

1864. Select Committee of the House of Commons to inquire into any plans for dealing with the sewage of the Metropolis and other large towns, with a view to its utilisation for agricultural purposes.

1865. First Royal Commission to inquire into the best means of preventing the pollution of rivers.

1868. Second Royal Commission to inquire into the best means of preventing the pollution of rivers.

1869. Royal Commission to inquire into and report upon the operation and administration of the sanitary laws outside the Metropolis.

1875. Committee appointed by the President of the Local Government Board to inquire into the several modes of treating town sewage.

1882. Royal Commission to inquire into and report upon the system under which sewage is discharged into the Thames by the Metropolitan Board of Works, whether any evil effects result therefrom, and in that case what remedies can be applied for remedying or preventing the same.

3. The general conclusion of these bodies has been that sewage could only be properly purified by land treatment; and, as a consequence, it has been usual to require local authorities to adopt land treatment.

During recent years, however, certain methods differing from those which were considered by the earlier Commissions have been evolved, and, in view of the difficulty—or even impossibility—which many local authorities experience in obtaining adequate areas of suitable land at reasonable cost, it was considered desirable that these newer methods should be carefully investigated. This led to the appointment of our Commission.

4. One of the first steps taken by us after our appointment was to seek examples of these newer methods. We visited several places which were suggested to us, but in no case was the whole of the sewage of a town being dealt with; in most of the cases no more than a small and a constant quantity of sewage was being treated by the particular process. Moreover, the number of places in which experiments on anything approaching a practical scale were being carried on was very limited. We learnt, however, that for several towns it was proposed to adopt one or other of these newer processes, and we therefore decided to postpone experimental investigation into their merits until the field for observation was more extended.

1630. 5. One of our earliest witnesses, the late Mr. Santo Crimp, an engineer of wide experience, pointed out the danger of basing final conclusions as to a process on the results obtained with experimental plant, and there can be no doubt that inferences so founded must be drawn with caution, especially so when the amount of sewage being dealt with is a fixed quantity each day, and when the experiment does not adequately reproduce the many varying conditions which occur in practice.

Moreover, the weak points in a method of sewage disposal may sometimes only be disclosed after long experience covering a wide range of conditions.

Further, the character of the sewage of different towns varies to so great an extent that it would be unsafe to formulate definite conclusions as to the relative merits of different processes until experience had been gained of their sustained application to different types of sewage.

6. In our first Report we pointed out that at the time of the investigations of the earlier Commissions, the science of bacteriology was in its infancy; those Commissions, indeed, confined themselves almost entirely to a chemical examination of sewage effluents. Since the earlier Commissions reported, a large amount of exact knowledge has been gained concerning the part played by bacteria in various processes of nature and under conditions contrived by man, and it became our duty to study the various questions connected with sewage disposal, not only from a chemical, but also from a bacteriological point of view. This has largely increased our labours.

We have had to initiate and carry out various bacteriological investigations, and apprehending that the work done by earlier Commissions in regard to land treatment did not suffice for our purposes, we have found it necessary to include in our work a systematic and detailed investigation, bacteriological and chemical, of the treatment of sewage on land of various kinds.

PLAN OF WORK.

7. Our investigation has been carried on in the following manner :—

(I) We have held 144 meetings and called before us the following witnesses:—

Name.	Qualification.
Mr. Alfred D. Adrian, C.B.	Assistant Secretary to the Local Government Board (England and Wales).
Mr. A. Murray	Chief Clerk to the Local Government Board (Scotland).
Mr. L. E. H. Deane	Engineering Inspector to the Local Government Board (Ireland).
Mr. R. A. Tatton, M.Inst.C.E.	Chief Inspector to the Mersey and Irwell Joint Committee (1898).
Mr. F. Scudder, F.I.C., F.C.S.	Acting Chemist to the Mersey and Irwell Joint Committee under the supervision of Sir Henry Roscoe, F.R.S.
Mr. W. H. Wilson	Deputy Clerk and Solicitor to the Mersey and Irwell and Ribble Joint Committees.
Mr. W. Naylor, A.M.Inst.C.E., F.C.S.	Chief Inspector of the Ribble Joint Committee (1898).
Mr. Trevor Edwards	Clerk and Solicitor to the West Riding of Yorkshire Rivers Board.
Mr. H. Maclean Wilson, M.D., B.Sc.	Chief Inspector of the West Riding of Yorkshire Rivers Board.
Mr. Theodore Thomson, M.D.	Medical Inspector under the Local Government Board.
Mr. W. Santo Crimp, M.Inst.C.E., F.S.I.	Civil Engineer.
Mr. W. S. Curphey, F.I.C., F.C.S.	H.M. Inspector for Scotland under the Alkali Acts and the Rivers Pollution Prevention Acts.
Mr. Donald Cameron	City Surveyor of Exeter.
Mr. W. J. Dibdin, F.I.C., F.C.S.	Chemist.
Colonel Ducat	Inventor of the "Ducat" filter.
Mr. W. E. Adeney, D.Sc., F.I.C.	Curator and ex-Examiner in Chemistry in the Royal University, Dublin.
Mr. H. Marshall Ward, F.R.S., D.Sc.	Professor of Botany, University of Cambridge.
Dr. G. Sims Woodhead	Director of the Research Laboratories of the Conjoint Board of the Royal College of Physicians (Lond.) and the Royal College of Surgeons (Eng.).
Sir Edward Frankland, K.C.B.	Member of the Commission appointed in 1868 to inquire into the best means of preventing the pollution of rivers.
Mr. W. D. Scott Moncrieff, M.I.M.E.	Engineer.
Mr. J. Garfield, A.M.Inst.C.E.	Engineer in Charge of Sewage Disposal Works at Wolverhampton.
Sir Henry Roscoe, F.R.S., D.C.L., LL.D	Professor of Chemistry in the Owen's College, Victoria University, Manchester, and Scientific Adviser to the Mersey and Irwell Joint Committee.
Mr. Sidney Barwise, M.D. (Lond.), D.P.H. (Camb.)	County Medical Officer of Derbyshire.
Mr. S. Rideal, D.Sc., F.I.C.	Chemist.
Mr. Baldwin Latham, M.Inst.C.E., etc.	Civil Engineer.
Mr. C. J. Whittaker	Chairman of the Accrington and Church Outfall Sewage Works.
Mr. T. Cosham	Representing the Natural Purification Company.
Mr. A. P. Hope, F.C.S.	Representing the "Bacillite" Sewage Purification process.
Mr. H. B. Jagger	Representing the Carbonised Refuse System of Sewage Purification.
Mr. F. Wallis Stoddart, F.I.C., F.C.S.	City Analyst for Bristol.
Mr. W. Brown	Representing the Reeves Chemical Sanitation Company's process.
Mr. W. C. Sillar	Representing the "A.B.C." process.
Mr. Douglas Archibald	Representing the "A.B.C." process.
Mr. H. Wollheim	Representing the "Amines" process.
Mr. W. H. Harrison, M.Sc.	Chemist to the Leeds Sewage Committee.
Mr. W. Eason	City Surveyor of Ripon.
Mr. F. Bagshaw	Borough Surveyor of Harrogate.
Mr. Gilbert J. Fowler, D.Sc., F.I.C.	Superintendent and Chemist of the Manchester Corporation Sewage Works.

Name.	Qualification.
Mr. W. J. Newton, A.M.Inst.C.E.	Engineering Adviser to the Accrington and Church Outfall Sewage Board.
Mr. J. Barnes	Superintendent Chemist in Charge of the Accrington and Church Outfall Sewage Works.
Dr. A. C. Houston	Bacteriologist to Commission.
Dr. G. McGowan	Chemist to Commission.
Mr. G. Chatterton, M.Inst.C.E.	Civil Engineer.
Mr. D. Balfour, M.Inst.C.E.	Civil Engineer.
Mr. W. H. Prescott	Borough Engineer of Reigate.
Mr. Frank Candy	Surveyor and Sanitary Engineer of the International Purification Syndicate.
Colonel Harding	Member of the Commission and Chairman of the Leeds Sewerage Committee.
Mr. G. R. Strachan, M.Inst.C.E.	Civil Engineer.
Mr. Alderman H. F. Hibbert	Chairman of the Chorley Sewage Works and member of the Ribble Joint Committee.
Mr. E. G. Mawbey, M.Inst.C.E.	Borough Engineer of Leicester.
Prof. E. A. Letts, D.Sc., F.I.C., Ph.D.	Professor of Chemistry at Queen's College, Belfast.
Prof. W. A. Herdman, D.Sc., F.R.S.	University College, Liverpool, and Honorary Director of Scientific Work to the Lancashire and Western Sea Fisheries Committee.
The Hon. T. H. W. Pelham	Assistant Secretary to the Board of Trade.
Mr. J. C. Thresh, M.D., D.Sc., D.Ph., F.I.C.	Medical Officer of Health of the Essex County Council.
Mr. T. E. Hill, M.D.	County Medical Officer, Durham.
Mr. G. V. Poore, M.D., F.R.C.P.	Professor of Medicine at University College, London.
Mr. E. E. Klein, M.D., F.R.S.	Chemist and Bacteriologist.
Mr. W. Williams, M.A., M.D., D.Ph. (Oxon), M.R.C.S., F.C.S., etc.	Medical Officer of Health to the Glamorgan County Council.
Dr. P. F. Frankland, F.R.S.	Professor of Chemistry in the University of Birmingham.
Dr. J. A. Voelcker	Consulting Chemist to the Royal Agricultural Society.
Mr. A. F. Firth	Managing Director of Messrs. T. F. Firth and Sons.
Mr. H. Beaumont	Fulling Miller and Finisher.
Mr. J. Crowther	Chairman of the West Riding of Yorkshire Millowners' and Occupiers' Association.
Mr. G. C. Hirst	Woollen Manufacturer.
Mr. J. Bruce	Manager of Tanneries and Currying Works.
Mr. E. Butterworth	Flannel Manufacturer.
Mr. H. A. Foster	Managing Director of Alpaca and Mohair Spinning Works and Manufactories.
Mr. G. Sheard	Woollen Manufacturer.
Mr. W. E. Walker	Tanner.
Mr. Harvey	Tanner.
Mr. J. Stanning Mr. Ross Gemmell Mr. A. J. King	Representing the Calico Printers' Association, Ltd., and Bleachers' Association, Ltd.
Mr. J. H. Mills	Clerk and Surveyor to the Crompton Urban District Council.
Mr. Alderman J. T. Simpson	Chairman of the Halifax Sewage Committee.
Mr. J. Lord	Engineer to the Halifax Sewage Committee.
Mr. Keighley Walton	Town Clerk of Halifax.
Mr. J. Jones	Borough Surveyor of Pudsey.
Mr. W. Hopkinson	Borough Surveyor of Keighley.
Mr. J. E. Sharpe	Engineer and Surveyor of Otley.
Mr. B. Powell	Engineer and Surveyor of Handsworth.
Mr. A. E. Fletcher, F.I.C.	Inspector under the Alkali Acts.
Mr. T. Carter Beeley, J.P.	Mayor of Hyde.
Mr. S. S. Platt, M.Inst.C.E.	Borough Engineer of Rochdale.
Mr. T. Stenhouse, F.I.C., F.C.S.	Public Analyst of Rochdale.
Mr. E. Ll. Morgan, A.M.Inst.C.E.	Borough Engineer of Bolton.
Mr. J. Ashton, F.C.S., F.I.S.E.	Chemist and Manager of the Bolton Sewage Works.

Name.	Qualification.
Mr. R. Johnson	Chairman of the Sewage Committee of Bradford.
Mr. E. A. Brotherton, M.P.	Manager Director of Manufacturing Works.
Mr. D. Howard, F.I.C., F.C.S.	Chemical Manufacturer.
Mr. C. A. Davis	Owner of Dyeworks.
Mr. W. F. Reid, C.E., F.C.S., F.I.C.	Vice-President of the Society of Chemical Industry.
Mr. H. Marshall Mr. C. W. Crossley Mr. P. G. Baldwin Mr. J. Smith	Representing the Halifax Traders' Committee.
Sir Charles A. Cameron, M.D.	Public Officer of Health in the City of Dublin.
Mr. S. Harty, C.E.	Engineer to the Dublin Corporation.
Mr. M. F. Purcell, M.Inst.C.E.	Civil Engineer.
Mr. Forbes Watson	Chemist to Messrs. Guinness, brewers.
Mr. J. C. Bretland, M.Inst.C.E.	City Surveyor of Belfast.
Dr. Lorrain Smith	Professor of Pathology at Queen's College, Belfast.
Mr. George Giles, M.Inst.C.E.	Chief Engineer to Belfast Harbour Commissioners.
Dr. W. S. Squire	Representing the Society of Chemical Industry.
Mr. Alderman Ellis	Tanner.
Mr. Thorp Whitaker	Representing the Bradford Dyers' Association.
Alderman Sir Bosdin T. Leech	Chairman of the Manchester Rivers Committee.
Councillor C. Dreyfus	Deputy Chairman of the Manchester Rivers Committee.
Mr. J. D. Watson, M.Inst. C.E.	Engineer and General Manager to the Birmingham, Tame, and Rea District Drainage Board.
Mr. C. F. Wike, M.Inst.C.E.	City Surveyor and Engineer of the Sheffield Sewage Works.
Mr. J. Haworth, F.C.S.	Chemist of the Sheffield Sewage Works.
Mr. T. Hewson, M.Inst.C.E.	City Engineer of Leeds.
Mr. J. Garfield, A.M.Inst.C.E.	Engineer of the Bradford Sewage Works.
Mr. G. H. Pickles, A.M.Inst.C.E.	Borough Surveyor, Burnley.
Mr. Raymond Ross, F.I.C., F.C.S.	Borough Analyst, Burnley.
Mr. J. Corbett	Engineer of the Salford Sewage Works.
Mr. J. Carter Bell, F.C.S.	Public Analyst.
Mr. J. Arnold	Manager of the Salford Sewage Works.
Mr. James B. Wilkinson, M.D. (Edin.), D.P.H., F.C.S.	Medical Officer of Health, Oldham.
Mr. A. H. Valentine, M.Sc.	Analytical Chemist, Oldham.
Mr. H. T. Bulstrode, M.A., M.D.	Medical Inspector of the Local Government Board
Mr. Phillips	Master of the Brewers' Company.
Mr. H. H. Waller	Vice-President of the West Riding Urban and Rural District Councils' Association.
Mr. R. B. Emsley	Solicitor to the West Riding Urban and Rural District Councils' Association.
Mr. W. B. Pindar	Secretary to the West Riding Urban and Rural District Councils' Association.
Mr. J. S. Martin	H.M. Inspector of Mines.
Captain Anderson	Chairman of the Whitstable Oyster Fishery Company.
Mr. Charles Petrie	Alderman of the City of Liverpool.
Mr. J. Wrench Towse	Clerk of the Fishmongers' Company.
Mr. R. A. Dawson	Representing the Lancashire and Western Sea Fisheries Committee.
Mr. H. Donnison	Representing the Eastern Sea Fisheries Committee.
Mr. H. W. Gibson	Representing the Kent and Essex Sea Fisheries Committee.
Mr. J. Cole	Oyster Merchant, Poole.
Mr. A. L. Scott	Oyster Merchant, Poole.
Mr. A. Brazier	Oyster Merchant, Southwick.
Mr. J. Kennett	Oyster Merchant, Emsworth.
Sir William Pink Mr. St. Barbe	Representing the Southern Sea Fisheries Committee.
Mr. G. H. Baxter	Representing the Chamber of Fisheries.
Mr. J. T. C. Nash, M.D. (Edin), D.P.H.	Medical Officer of Health, Southend-on-Sea.

Name.	Qualification.
Mr. W. J. Bean	Oyster Merchant, West Mersea.
Mr. James Blamey, M.R.C.S.	Medical Officer of Health, Penryn.
Mr. Arthur Newsholme M.D., F.R.C.P. (Lond.)	Medical Officer of Health, Brighton.
Mr. James Niven, M.B.	Medical Officer of Health, Manchester.
Mr. J. H. Barber	Secretary of the Chamber of Fisheries and the London Fish Trade Association.
Mr. William G. Savage, M.D., B.Sc., D.P.H.	Medical Officer of Health, Colchester.
Mr. M. Fitzmaurice, C.M.G.	Chief Engineer of the London County Council.
Prof. Frank Clowes, D.Sc., F.I.C.	Chemist of the London County Council.
Mr. H. Williams, M.D.	Medical Officer of Health, Port of London.
Sir Shirley Forster Murphy, M.R.C.S.	Medical Officer of Health, London County Council.
Mr. C. C. Hutchinson	Counsel to the Lee Conservancy.
Mr. Geo. Corble	Clerk to the Lee Conservancy.
Messrs. Clapham and Fitch	Solicitors to the Lee Conservancy.
Mr. C. N. Tween	Engineer to the Lee Conservancy.
Mr. W. C. Young	Chemist to the Lee Conservancy.
Mr. R. B. Croft	Chairman of the Lee Conservancy.
Mr. E. B. Barnard	Member of the Lee Conservancy.
Mr. H. Nield	Member of the Lee Conservancy.
Mr. R. Phillipson	Secretary to the Thames Conservancy.
Mr. F. A. W. Drummond	Chief Inspector to the Thames Conservancy.
Mr. C. E. Groves	Analytical Chemist to the Thames Conservancy.
Dr. T. J. Browne	Medical Inspector, Local Government Board, Ireland.
Prof. E. J. McWeeney, M.A., M.D., D.Ph.	Bacteriologist to the Local Government Board for Ireland.
Mr. E. W. L. Holt	Scientific Adviser to Department of Agriculture, Ireland.
Dr. Cowie Mr. Allan Mr. Thorne Mr. Hopkins Mr. J. Robertson Mr. Doig Mr. Grant Glen Grant Mr. Fergusson Mr. Brown Mr. Mustard	Representing the South, East, West, and North of Scotland Malt Distillers' Association.
The Duke of Richmond and Gordon Mr. J. R. Findlay Mr. W. S. Menzies Mr. J. H. W. Grant	Representing Riparian Owners in Scotland.
Mr. Herbert Hughes, C.M.G.	Clerk of the Millowners' Association.
Mr. J. Selwyn Rawson	Millowner.
Mr. A. F. Somerville	Chairman of the Sanitary Committee of the Somerset County Council.
Mr. E. Halliwell	Chief Inspector of the Ribble Joint Committee.
Mr. George Reid, M.D., D.P.H.	Medical Officer of Health of the Staffordshire County Council.
Mr. J. Bolton	Manager of the Heywood Borough Sewage Purification Works.
Mr. J. H. Kershaw, F.C.S.	Chemist and Manager of the Corporation Sewage Works, Rotherham.
Mr. K. F. Campbell, M.Inst.C.E.	Borough Engineer of Huddersfield.
Mr. O. J. Kirby	Borough Engineer of Batley.
Mr. J. P. Wilkinson, M.Inst.C.E.	Engineer of the Manchester Sewage Works.
Mr. F. R. O'Shaughnessy, A.R.C.Sc., F.I.C.	Chemist to the Birmingham, Tame, and Rea District Drainage Board.
Mr. Geo. Watson, M.Inst.M.E., A. M.Inst.C.E.	Managing Director of the Horsfall Destructor Co.
Mr. W. F. Goodrich, A.M.Inst.M.E.	London Manager, Messrs. Meldrum Bros., Ltd.
Mr. J. E. Willcox, M.Inst.C.E.	Civil Engineer.

Name.	Qualification.
Mr. H. P. Raikes, A.M.Inst.C.E.	Civil Engineer.
Mr. J. Hunter, F.I.C., F.C.S.	Consulting Chemist.
Mr. J. B. Readman, D.Sc., F.R.S. (Edin.)	Consulting Chemist.
Mr. R. R. Tatlock, F.R.S. (Edin.), F.I.C., F.C.S.	Consulting Chemist.
Mr. J. H. Fullarton, M.A., D.Sc.	Formerly Scientific Adviser to the Fishery Board for Scotland.
Mr. Jas. Hendrick, B.Sc., F.I.C.	Public Analyst for the Counties of Aberdeen, Banff and Nairn.
Mr. Stevenson Macadam, F.I.C., F.C.S.	Analytical and Consulting Chemist.

(II) We have, by means of circular letters, obtained a large amount of assistance from many scientific men who have had special experience in regard to the subject of sewage disposal.

(III) A number of local authorities have carried out experimental investigations in association with the Commission, and have been good enough to furnish us with monthly records of the results of their experiments. These towns are as follows: —

Birmingham.	Leeds.	Rotherham.
Burnley.	Manchester.	Salford.
Heywood.	Oldham.	Sheffield.
Huddersfield.		

The reports furnished by these authorities are printed with the evidence. In each case the officers responsible for the local investigations were called before us to give evidence.

(IV) We have put under the systematic observation of our own officers a number of sewage farms and sewage works of different types.

The officers' reports on their observations of artificial processes are issued with this report as Appendix III. Their reports on the sewage farms were issued as an Appendix to our Fourth Report.

(V) We have carried out the following special investigations:—

Place at which the experiment was carried out.	Object of experiment.
Accrington	(*a*) For the purpose of ascertaining the relative difficulty of treating the same tank liquor, diluted and undiluted, on contact beds and on percolating filters. (*b*) To compare the purification effected in each instance by these two types of filter, under similar conditions in the one and in the other case.
Dorking	(*a*) For the purpose mainly of comparing septic tank liquor, precipitation liquor, and settled sewage derived from the same sewage, as to their amenability to subsequent oxidation by filtration. (*b*) To compare the reduction of suspended matter in the same sewage effected by the different processes of tank treatment, and to ascertain the quantities of sludge produced in each case. (*c*) Removal of suspended matter from percolating filter effluents. (*d*) Reduction in number of intestinal organisms in filtrates by means of sterilising agents, and comparison of the results obtained by this method with the effect of filtration through sand. (*e*) Comparative values of deep and shallow filters. [*See also* Ilford.]
Exeter (Belle Isle)	Digestion of sludge in septic tank. [*See also* Ilford.]
Guildford	For the purpose of ascertaining whether, by the addition of "oxychloride" solution to septic tank liquors, the unpleasant smell actually developed by such liquor may be destroyed without impairing the ability of the filter, subsequently dealing with the liquor so treated, to effect the requisite purification.
Hendon	Sterilisation of effluents.
Ilford	(*a*) Digestion of sludge in septic tank. (*b*) Comparative values of deep and shallow filters.

At some of these places channels have been provided along which the effluent has been allowed to flow, the main object being to ascertain whether effluents liable to bring about undesirable changes in the condition of a stream into which they are discharged can be clearly distinguished by chemical test from those which do not.

(VI) We have personally visited a large number of sewage works.

8. We wish to express our great indebtedness to the several local authorities, and to the many gentlemen from whom we have received assistance. Their names are far too numerous to mention.

Appendices to Report.

9. The following volumes are presented as appendices to this report :—

(I) The Evidence of Witnesses.

(II) A Summary of the Evidence.

In preparing this report we found it necessary to make a summary of the evidence.

The plan which was followed was to divide the subject up into chapters such as sewage, storm-waters, sedimentation tanks, septic tanks, standards, and so on, and then to sub-divide each chapter.

The evidence given on questions of primary importance was thus very briefly summarised and brought together.

We think that this summary may possibly be of general utility and we have therefore decided to publish it, but of course the evidence itself should be consulted by anyone wishing to make a complete study of the subject.

(III) Reports on the observations of artificial processes at the following places :—

Accrington.	Halton.	Maidstone.
Andover.	Hampton.	Newton le Willows.
Calverley.	Hartley Wintney.	Normanton.
Caterham.	Hendon.	Oswestry.
Chorley.	Hendon (Ducat filter).	Prestolee.
Clifton.	Horfield.	Rochdale.
Exeter (Main Works).	Kingston-upon-Thames.	Slaithwaite.
Exeter (St. Leonard's).	Knowle.	Withnell.
Guildford.	Little Drayton.	York.

(IV) Reports on the special investigations, mentioned on page 7, at Accrington, Dorking, Exeter, Guildford, Hendon, and Ilford.

Memorandum by Mr. Frye upon experiments carried out at Oldbury on the treatment of the sewage of that town.

Memorandum by Dr. McGowan as to measuring strength of sewage.

Report by Dr. McGowan and Mr. Frye on the estimation of the work done by filters which have been under the observation of the Commission.

Report by Dr. Houston on laboratory experiments on the biological purification of sewage.

Report by Dr. Houston on the biological character of B. coli in sewage and sewage effluents.

Reports by Dr. Houston on the results of the bacteriological examination of sewage and effluents from the sewage works at Bradford, Leeds, Manchester, and Ilford.

Report by Dr. Houston and Dr. McGowan on the sterilisation of the Lincoln water.

(V) Reports by Mr. Baldwin Latham, M.Inst.C.E., and Mr. R. A. Tatton, M.Inst.C.E., upon the effect of rainfall on the flow of sewage.

(VI) A report by Professor Letts and Dr. Adeney on the pollution of estuaries and tidal waters. In regard to this we may refer to paragraph 116 of our fourth Report, which was as follows:—

> "In connection with the question of standards as regards offensive putrefaction and injury to fish, we may state that much work has already been done, both in this country and abroad. We have therefore thought it desirable that the results of this work should be collected and collated. Mr. E. A. Letts, D.Sc., F.I.C., Ph.D., Professor of Chemistry at Queen's College, Belfast, and Mr. W. E. Adeney, D.Sc., Vice-President of the Institute of Chemistry, Curator and Examiner in Chemistry in the Royal University, Dublin, have kindly arranged to do this and to report to us on the question how far these results may suffice to show the conditions under which tidal rivers would become, (*a*) a nuisance in consequence of offensive putrefaction or (*b*) injurious to fish, either in consequence of the diminution of oxygen or the presence of poisons. The results so collected will, we hope, be of considerable use in enabling each Rivers Board to deal with waters under its jurisdiction."

To this report is appended a Paper by Mr. Gilbert J. Fowler, D.Sc., F.I.C., on the effects of discharge of septic tank sludge into a tidal estuary.

(VII) A copy of a circular letter on the question of standards for sewage effluents, and of the replies which were sent to us by chemists and others.

(VIII) Reports by Mr. W. Somerville, D.Sc., Mr. T. H. Middleton, M.A., M.Sc., and Dr. J. A. Voelcker upon experiments on the manurial value of sewage sludge.

Terms of Reference.

10. The first paragraph of the Terms of Reference requires us to state how (*a*) sewage, (*b*) sewage and trade effluents, and (*c*) trade effluents alone, may be properly treated or disposed of having regard to the requirements of

I.—The existing law.

II.—Public health.

III.—Economy and efficiency.

The second paragraph requires us to report by what rules, in relation to varying circumstances or requirements, should the particular method to be adopted be determined.

These terms open up a wide field of inquiry, and the second paragraph involves intimate study of various methods of treatment, many of which are new, under a very large number of different conditions.

GENERAL CONCLUSION.

11. Before dealing in detail with the numerous questions involved in our inquiry, we think it will be convenient that we should at once state our general conclusion on the question contained in the first paragraph of our Terms of Reference.

We are satisfied that it is practicable to purify the sewage of towns to any degree required, either by land treatment or by artificial filters, and that there is no essential difference between the two processes, for in each case the purification, so far as it is not mechanical, is chiefly effected by means of micro-organisms. The two main questions, therefore, to be considered in the case of a town proposing to adopt a system of sewage purification are, first, what degree of purification is required in the circumstances of that town and of the river or stream into which its liquid refuse is to be discharged; and, second, how the degree of purification required can, in the particular case, be most economically obtained.

The choice of a scheme must depend on a number of considerations which will be discussed later, but we may here state that we know of no case where the admixture of trade refuse with the sewage makes it impracticable to purify the sewage either upon land or by means of artificial processes, although in certain extreme cases special processes of preliminary treatment may be necessary.

PLAN OF REPORT

12. We propose to divide this Report into the following parts :—

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PART I. PRELIMINARY TREATMENT OF SEWAGE.

INTRODUCTORY REMARKS.

13. Sewage generally may be said to consist of a mixture of saline matter in solution and nitrogenous and carbonaceous organic matter in solution and suspension together with a certain amount of grit and mineral matter. The objects to be aimed at in its purification are the removal of the suspended matters and the oxidation of the remaining organic matter and ammonia.

There is a considerable amount of evidence to show that the oxidation of the organic matter during its passage through filters or land is chiefly a biological process, but as to the exact nature of the action which takes place very little is known.

One of our chemists, Mr. Colin Frye, carried out a * series of experiments at Leeds, in which he showed that, although a mature filter could not appreciably oxidise sewage sterilised with corrosive sublimate, it could oxidise sewage which had been sterilised with steam. Further, that a sterile filter could not appreciably oxidise sterile sewage.

We may also refer to some experiments which Dr. Houston, our bacteriologist, made during the year 1903. (Report by Dr. Houston on laboratory experiments on the biological purification of sewage: contained in Appendix IV.)

These experiments seem to suggest that the presence of such non-sporing bacteria as B. coli, B. proteus, etc., are not *essential* to purification, and that the work may be performed by other micro-organisms.

They also show that, although a filter may contain initially an enormous number of B. coli, if the liquid passing on to the filter contains none of these micro-organisms, this microbe rapidly disappears from the effluent, although the filter may still be able to support the life of many other bacteria. It is therefore to be inferred that sewage filters, when working properly, are not likely to provide suitable breeding grounds for pathogenic bacteria, although they allow a certain number of such bacteria to pass through them.

14. As regards the fermentative changes which occur in the purification of sewage, Dr. Adeney has made a large number of valuable experiments. His results have been published from time to time in the Transactions of the Royal Dublin Society, and in the proceedings of the Royal Irish Academy, and a connected account of the work is included in the † Report, which he and Dr. Letts have presented to the Commission on the Pollution of Estuaries and Tidal waters.

Dr. Adeney founds the following general conclusions on his work:—

General Summary.

"In the foregoing pages the chemical changes, which occur in a polluted water during so-called self-purification under aerobic conditions, and the laws underlying them, have been traced and established; and this has necessitated the discussion in minute detail of a large amount of experimental evidence of a varied character. A brief summary of the results arrived at, apart from experimental details, may therefore prove of some convenience to those interested in the subject.

"The most important change which occurs in an unpolluted water, when it is mixed with sewage or other water-borne refuse matters, is the more or less rapid absorption of its dissolved oxygen.

"The absorption may be effected in three different ways:—(1) The polluted water, from its own state of total or comparative de-aeration, reduces the aeration of the unpolluted water by simple dilution; (2) the polluted water may contain directly and easily oxidisable substances, which on becoming mixed with the unpolluted water will cause a more or less rapid loss of its dissolved oxygen; (3) the organic constituents of the sewage, which are not directly oxidisable (and they usually form the greater portion of the organic substances in it), and the ammonium compounds, are oxidised through the agency of water bacteria, and thus indirectly cause a loss of dissolved oxygen.

"These possible causes of de-aeration are enumerated in the order in which they would in all probability take effect under natural conditions. The first is obvious, although its importance has not been sufficiently recognised. Its effect can easily be differentiated from the other two, if the amount of dissolved oxygen, or as it is generally termed, the degree of aeration of the polluted water, be first determined, and this can be done without difficulty either by a gasometric or volumetric method.

* For a description of these experiments *see* our Second Report, Cd. 1157 [1902].

† *See* Appendix VI.

"The second cause of de-aeration is equally obvious, although its importance has also not been sufficiently realized. Such experiments as those recorded in Tables 34, 35, 35A, 36, and 37 prove that directly oxidisable bodies, from the rapidity with which they absorb oxygen, constitute a greater danger to the aeration of the water with which they become mixed than do indirectly oxidisable substances. Hence it is necessary to know the rate of absorption of oxygen caused by them as well as by indirectly oxidisable substances.

"It is impossible to foretell the influence of these two causes of de-aeration from any information derivable from the ordinary methods of chemical analysis. It is, however, possible to do so by means of the aeration method, and the foregoing pages have been largely devoted to a description of that method, and of the experimental investigation upon which it is based.

"A study of indirect oxidation by this method has shown that it is a physiological process analogous to the respiratory process of higher vegetable systems; but that it is only one, although the principal one, of a number of physiological processes concerned in the self-purification of a polluted water under aerobic conditions.

"It is unnecessary to discuss these in detail. It is sufficient for the study of polluted waters to recognise the possibility of processes of digestion (by enzymes), and to regard the remainder as together exercising one function, viz., the synthesis of the constructive materials required for the growth and multiplication of the bacteria, and at the same time to remember that there must result from these synthetical processes waste or by-products, which may be regarded as excretory substances.

"The chemical changes which are produced by the above processes may collectively be termed fermentative changes for convenience of reference.

"Experiments with samples of sewage and of polluted waters, of various descriptions, have been made, and it has been found that when they were severally mixed with unpolluted water in small proportions, within the limits of fouling, the fermentative changes which follow exhibit a definite and regular sequence. The organic matters first suffer complete fermentation, the products of change being carbonic acid, water, ammonia, and organic substances possessing the chemical and physical properties of the humus of cultivated soils, and of the organic substances to be found in all unpolluted natural waters, especially in those from upland surfaces.

"A second stage of change subsequently ensues, in which these humus matters and the ammonium compounds are further fermented, the resulting products being carbonic acid, nitric acid and water.

"The inorganic products of the first stage of fermentation result from the action of the respiratory process, and possibly also of enzymes; and the humus-like substances are waste products from the synthetical processes.

"It is a point of interest to note that free nitrogen has not been observed amongst the products of the fermentation of organic substances in water under aerobic conditions, although it does undoubtedly occur amongst the products of fermentation in percolating filters even when the conditions therein are wholly aerobic. It is a question, no doubt, of intensity of oxidation. The filter presents conditions for an extremely rapid and intense oxidation; while water in large bulk, owing to the sparing solubility of oxygen in it, can only allow a sluggish oxidation to proceed in it.

"Experiments with distilled water solutions of simple organic substances of known composition have shown that the respiratory process is one of simple oxidation, and that the organic matters affected by it are completely oxidised to the inorganic products, carbonic acid, ammonia and water. The oxidation may either be complete step by step as the fermentation proceeds, or only partial at first but finally complete, according to the chemical properties of the substances undergoing fermentation.

"In the simple solutions employed in these experiments, it was evident from the composition of the organic substance dissolved in each and from the ratio of the carbon dioxide formed to oxygen absorbed, on its complete fermentation, that the oxygen was almost, if not entirely, taken up by the respiratory process. Other experiments, however, have shown that it is quite possible under certain exceptional conditions as to the composition of the fermenting substances, for the synthetic processes to take up relatively considerable quantities of oxygen. Whether oxygen is or is not taken up by these processes appears to be a question of composition of the fermenting substance, as might be expected. In ordinary cases, however, of polluted waters, the composition of the polluting substances generally appears to be such that during their fermentation the absorption of oxygen is practically confined to the respiratory process.

"Enzymic action is intimately associated with the respiratory process in the fermentation of many organic substances. The chemical changes induced by them are principally hydrolytic, and the products are generally simplifications of the original body; and these undergo further fermentative change. Only in the case of urea do they bring about a complete change to the ultimate products, carbon dioxide and ammonia.

"Sometimes enzymic changes occur with almost explosive velocity; *e.g.*, asparagin, when present in the fermenting water, is hydrolysed with extreme rapidity, the whole of it being converted into aspartic acid and ammonia at the very commencement of the fermentation, the hydrolysed product, aspartic acid, then undergoing complete fermentation.

"In other cases, enzymic change may proceed extremely slowly, very much more so than the other fermentative changes which may be going on in the same water. Urea when present in some polluted waters is an example of this.

"There are some other substances which may occur in polluted waters, *e.g.*, native albumins and fats, which require to undergo enzymic change before they can be readily fermented by water bacteria.

" The chemical changes which are brought about by the respiratory process and by enzymes may be regarded as yielding a continual supply of energy to the bacteria. They effect the complete oxidation of 70 to 80 per cent. of the organic substances originally present in the polluted water.

" The new material resulting from the synthetical process accounts probably for about 5 per cent., or even less, and the waste products for the remaining 15 to 25 per cent.

" As regards possible relationships between the volume of carbon dioxide formed to oxygen absorbed in a polluted water, it is obvious there can be no very definite one, especially when the water contains directly and easily oxidisable substances, *e.g.*, sulphides, etc., in addition to indirectly oxidisable ones. As a matter of fact, however, in the case of most waters polluted by fresh sewage, a fairly constant relationship has been observed, the ratio of carbon dioxide to oxygen being approximately as 1 : 1. If the sewage be putrefactive and contain sulphides, the ratio may be much less, *e.g.*, the ratio for the septic tank liquor employed for the experiments recorded in Table 39 is as 1 : 1·3.

" After the completion of the fermentation of the organic matters, a second stage of change, as already noted, sets in, and during it the products of the first stage, that is, the ammonium compounds and the humus matters, undergo further fermentation. As a result the former are completely oxidised to nitric acid and the latter more or less completely to carbon dioxide and nitric acid. The point of interest and importance in this stage of fermentative changes is the influence of the humus matters on the oxidation of the ammonium compounds.

" Laboratory experiments have shown that they not only accelerate the fermentative changes, but that their presence is necessary for the oxidation of the ammonium compounds to nitric acid. When they are entirely absent, the oxidation is not carried under ordinary conditions beyond nitrous acid.

" When the ammonium compounds are present in slight excess of the humus matters, both may be completely fermented, the inorganic products being carbon dioxide, water and nitric acid.

" The changes which humus matters may undergo when in excess of the ammonium compound appears to be very variable. For example, when fresh, a portion of their carbon is readily oxidised to carbon dioxide, and then, if unassociated with compounds of ammonia, they cease to undergo much further change.

" The volume of oxygen actually absorbed in the second stage of fermentation does not bear a constant ratio to the oxygen theoretically equivalent to the nitrous and nitric oxides formed. The volume may be greater than the theoretical, in the proportion of 10 : 8·14 (Table 19, Experiment 1 and 1*a*), if humus matters are wholly absent ; or less, *e.g.*, 10 : 13·5 (Table 19, Experiment 2), if these are present in large quantities and are freshly formed.

" Where, as in ordinary cases of polluted tidal waters, humus matters are unlikely to be present in any but small proportions, the volume of oxygen required for the oxidation of the ammonia to nitric acid can be calculated with sufficient accuracy from the equation :—

$$2\ NH_3 + 4\ O_2 = N_2O_5 + 3\ H_2O.$$

" On comparing together the changes which progressively occur in the two stages of fermentation which have been described, it becomes evident that the oxidation of ammoniacal nitrogen to nitrous and nitric acids constitutes the central feature of the second stage, just as the oxidation of organic carbon to carbon dioxide constitutes the central feature of the first stage. It may be concluded, therefore, that the products nitrous and nitric acids of the one stage are the analogues of the product carbon dioxide of the other stage. The first stage of fermentation may consequently be termed the carbon-oxidation stage, and the second the nitrogen-oxidation stage. These terms have the advantage of emphasising a fact which it is necessary to keep in mind in dealing with the subject of water pollution ; it is that the sequence of the chemical changes, which occur during self-purification under aerobic conditions, takes place in accordance with thermo-chemical principles.

" A classification of the substances which may occur in polluted waters may be made, based on their behaviour towards the dissolved oxygen of the water, as follows :—

(1) Directly oxidisable substances.

(2) Indirectly oxidisable substances.

" These latter may be further sub-divided, according to their fermentative properties into—

(*a*) Carbon oxidisable substances, that is, most known organic substances except antiseptics.

(*b*) Nitrogen fermentable substances, that is, the waste products from a first stage fermentation, and ammonium compounds.

" Not only do the fermentative changes in a polluted water follow a definite and regular sequence, but the relationship between the oxygen absorbed and the products formed, and between both of these and the quantities of polluting matters originally present, are quantitative according to the following law :—The quantities of oxygen absorbed, and of products formed, on the completion of each stage of aerobic fermentation, is constant for similar volumes of the same polluted water, provided that the dissolved oxygen is in excess of the fermenting matters.

" It must be granted from the above brief description of the fermentative changes which occur in a water during self-purification under aerobic conditions, that the significance of the presence of indirectly oxidisable substances in water depends not upon their exact quantity and chemical composition, but upon their fermentative properties and on the rate at which they will absorb oxygen from the waters with which they are mixed. The same remark applies with equal force to directly oxidisable substances."

" It must also be granted that the methods which are at present employed for the analysis of sewage and of sewage effluents, which were originally worked out for the analysis of potable waters, do not afford information of this kind. The aeration method has consequently been proposed for the purpose. As may be gathered from the perusal of pp. 67-91 it is possible to determine by its means the rate of absorption as well as the total absorption, of oxygen which a sewage or sewage effluent is capable of setting up when mixed

in small proportions with unpolluted river or tidal water, during direct oxidation as well as during both stages of indirect oxidation. From the description of the method given on p. 96, it will be seen that several modifications in working can be adopted according to the object in view, that is to say, whether it be desired to study the fermentative changes step by step in their entirety, or simply to determine the rate of, or total, absorption of oxygen during them. The modifications required for the latter purpose can be so simply operated that untrained persons can be taught to carry them out without difficulty.

"Another phase of the subject of the self-purification of slightly polluted waters, and a scarcely less important one, is the rate at which the dissolved oxygen in such is replenished from the atmosphere under natural conditions, when it is being absorbed by polluting matters. It is obvious that definite information is required on this question before it will be possible to formulate standards of impurity for the protection of river and tidal waters from over-pollution.

"Experiments have been described which afford some fairly trustworthy information on this subject. The results of these experiments were quite unexpected, since they show that the slow rate of re-aeration of large volumes of de-aerated tidal water under calm weather conditions is not due to the slow process of mixing by thermal current or of diffusion of the dissolved gas after it has been taken up in solution by the surface layers of the waters exposed to the air. On the contrary, it has been shown that the slowness of re-aeration is due to retardation of the process of solution at the water's surface, and that when oxygen has become dissolved at the surface from the atmosphere, it is drawn with comparative speed through the water, apparently by some unexplained process of gravitational streaming. It has also been shown that long columns (6 feet) of de-aerated fresh or sea water enclosed in narrow glass tubes of small bore are comparatively quickly re-aerated when the surfaces of the columns were kept continuously broken, either by a mechanical stirrer or by a slow current of air delivered by an inlet tube dipping a little below the surface.

"It has, furthermore, been found from these experiments that the aeration of the sea water columns was effected much more rapidly than that of the fresh water columns, and that the dissolved gases showed practically no tendency to accumulate in the surface layers of the sea water columns, but passed almost as quickly through them as they were dissolved, with the result that the degree of aeration of the water is found to be nearly uniform throughout the length of the column, if it be tested at different depths at any time during the process of aeration; while in the case of the fresh water columns the dissolved gases did show a tendency to accumulate in the upper layers, and did not pass so rapidly to the lower layers."

15. Dr. Fowler, Professor Frankland, Mr. Harrison, Dr. Letts, Dr. Reid, Mr. Stoddart, Dr. W. Owen Travis and many others have also carried out numerous experiments with a view of elucidating some of the scientific questions involved in the purification of sewage, but notwithstanding the fact that a considerable amount of exact knowledge has been gained as the result of the experimental investigations which have been already made, there are many questions in regard to which our knowledge is exceedingly limited.

As regards the actual disposal of sewage on a practical scale, Colonel Harding and Mr. W. H. Harrison, at Leeds; Dr. Fowler, at Manchester; Mr. J. D. Watson and Mr. F. R. O'Shaughnessy, at Birmingham; Messrs. Willcox and Raikes, and Dr. George Reid at Hanley, Newcastle-under-Lyme, and elsewhere; Mr. A. H. Valentine and Dr. J. B. Wilkinson, at Oldham; Messrs. Raymond Ross and G. H. Pickles, at Burnley; Mr. Joshua Bolton, at Heywood; Mr. J. H. Kershaw, at Rotherham; Mr. K. F. Campbell, at Huddersfield; Mr. J. Carter Bell, at Salford; Mr. C. F. Wike and Mr. J. Haworth, at Sheffield, and others have carried out many valuable experiments in regard to certain methods of purifying sewage. These gentlemen have placed before us all their results, and have been most liberal in assisting us in every possible way.

16. As regards our own work we have, in an earlier paragraph, explained the general scope of our investigations.

Throughout our inquiry we have endeavoured to gain such knowledge as would enable us to pass from the stage of broad qualitative observation to one of exact quantitative statement, but in regard to many matters this transition is not at present practicable, and, therefore, we can only comply in general terms with the terms of reference which directed us to state "by what rules, in relation to the nature or volume of sewage, or the population to be served, or other varying circumstances or requirements, should the particular method of treatment and disposal to be adopted be determined."

The circumstances of different places are of endless variety and there are many varieties of treatment, any one of which will be successful, if properly carried out. The main question to be determined in each case is which of these methods will be cheapest, having regard to the local circumstances.

We propose to discuss various methods of disposal in some detail, and then to indicate, in broad terms, the considerations which should be borne in mind in the selection of a method of treatment for any particular case.

STRENGTH OF SEWAGE AS AFFECTING PURIFICATION.

17. The composition of different sewages varies to a large extent, and it is important to consider how strength of sewage, as affecting purification, may be measured. The amount of filtration necessary to produce an effluent of any given standard of purity varies, to a wide extent, with different sewages.

The variations in strength of the sewage of different towns depend chiefly on the amount and nature of the water supply; the extent to which the houses are provided with water closets; whether a separate system of sewers is provided for storm waters; and what trade effluents (if any) are admitted into the sewers. Dr. Fowler has pointed out that a fairly accurate idea of the strength of sewage, as affecting purification, may be arrived at by measuring the number of gallons of sewage per head per day arriving at the outfall and making allowance for the other factors, while other witnesses have suggested that the usual tests, such as "oxygen absorbed", are sufficient. 22735.

18. Where, however, a more exact measure of strength is needed, we are inclined to think not only on theoretical grounds, but also as the result of experience, that this can at present best be obtained by ascertaining the amount of dissolved oxygen taken up during the complete, or practically complete, oxidation of the organic and ammoniacal matter in the sewage. 25578.

The purification of sewage is to a large extent a process of indirect oxidation through the agency of bacteria, and one of the chief things required to be known about any particular sewage is how much oxygen is required for its complete oxidation. The rate at which the sewage will take up oxygen is also a factor of importance, in that it furnishes information as to the character of the organic matters.

The dissolved oxygen test is a biological process, and it differs from the ordinary tests—such as oxygen absorbed from permanganate—in that it takes account of practically the whole of the organic matter, and not merely that of a particular kind.

The amount of oxygen which a sewage can take up is, however, only an approximate measure, for purposes of purification, of its strength, as some constituents of sewage are oxidized by filters or land more readily than others, and the proportion which they bear to the total organic matter varies largely in different cases.

19. To determine the amount of oxygen which a sewage requires for its oxidation, a definite quantity of the sewage is allowed to remain in contact with a known excess of oxygen until it is completely oxidised, and the oxygen remaining over is then measured. This can be done either:

(*a*) By diluting the sewage largely with good tap water, estimating the oxygen in solution in a portion of the mixture, and allowing the remaining portion to stand in a bottle which is filled completely and shut off from all access of air. At least two months must be allowed for this, after which the oxygen remaining in solution is determined. The difference represents the oxygen used up.

(*b*) By keeping the sewage, without diluting or diluting only very slightly, continuously aerated in a bottle containing a measured excess of air. Dr. Adeney, who has suggested this plan, has found it to be very much more rapid than the first.

20. A serious disadvantage in the use of the dissolved oxygen test as a measure of the strength of sewage is that it requires, even with the more rapid method suggested by Dr. Adeney, a comparatively long time to oxidize the organic matter completely by dissolved oxygen. From the results of a considerable number of laboratory experiments with method (*a*), we thought that a period of about two months might be generally taken as sufficing for the oxidation of nearly all the oxidisable matter, excluding (to some extent,

at least) cellulose and fat. Later results, however, appear to show that this may be too short a time under ordinary conditions of experiment. Though we have not made enough observations on the point to speak definitely, we are satisfied that the oxidation of cellulose and fat in diluted sewage, under the aerobic conditions of our experiments and at ordinary temperature, is slow*. In practice, however, there are but few instances of the treatment of *crude* sewage on biological filters, and the amounts of cellulose and (probably) of fat which are present in the liquids usually treated (settled sewage, septic tank liquor, and precipitation liquor) are relatively small.

By method (*b*) and by making use of a mechanical shaker attached to a suitable gas apparatus, Dr. Adeney† succeeded in oxidizing strong septic tank liquor by means of atmospheric oxygen, without any dilution with water, while he followed the course of the reaction by determining at different intervals of time the quantity of oxygen required by known volumes of the liquor. In this way he reached the nitrification stage of the process in twelve days. The method is thus a great advance, as regards time required, upon the dilution method.

Recently Dr. Adeney has invented an ingenious apparatus for carrying out the dissolved oxygen absorption test, by which the rate of absorption of oxygen as well as the total amount of oxygen taken up can be readily measured. It is described on p. 438 of Appendix VI.

21. With a view to ascertaining whether the dissolved oxygen absorption test bears any more or less constant ratio to other and more rapid tests, Dr. McGowan, our chemist, has made a number of observations.

He gives figures to show that the amount of dissolved oxygen which a sewage would take up during oxidation can be arrived at, with a fair degree of accuracy, by a calculation based on the " oxygen absorbed " figure and the figures of analysis of the ammoniacal and organic nitrogen.

A copy of Dr. McGowan's Memorandum is printed in Appendix IV.: the following extract shows the formulæ which he suggests:—

"By applying the results given in Table A it would appear that the relative 'strength' of a sewage liquor can be arrived at rapidly, with a fair degree of accuracy, by estimating the ammoniacal and organic nitrogen and the 'oxygen absorbed" from strong acid permanganate *at once* and *in 4 hours* at 27°C. (80°F.), and afterwards making use of one of the following alternative formulæ:—

(1)		
Column 9.	For *Sewages.*	(Ammon. + Organic N.) × 4·5 + (Oxygen abs. in 4 hrs. × 6·5).
	For *Septic Tank Liquors.*	" " " + (" " × 6·5).
	For *Precipitation Liquors.*	" " " + (" " × 6·0).
(2)		
Column 10.	For *Sewages.*	(Ammon. + Organic N.) × 3·0 + (Oxygen absorbed in 4 hrs. × 8·0).
	For *Septic Tank Liquors.*	" " " + (" " " × 8·0).
	For *Precipitation Liquors.*	" " " + (" " " × 7·5).
(3)		
Column 8.	For *Sewages,*	(Ammon. N. + 4·5) + (Oxygen absorbed in 4 hrs. × 8·0).
	For *Septic Tank Liquors.*	" " + (" " " × 7·5).
	For *Precipitation Liquors.*	" " + (" " " × 7·5).

"The variations in the individual ratios given by the same kind of sewage liquor in Table A are too great to allow of this method of arriving at their 'strengths' being more than approximate. Probably the variations would have been less marked if all the long aerations had been carried out in mercury-jointed bottles, and if the small quantities of gases evolved had been allowed for. Further experiments will, however, settle the point."

* One part of cellulose, by weight, requires only 1·2 parts of oxygen for its complete oxidation; one part of fat requires nearly 6 parts of oxygen. Tri-palmitin $C_3H_5(OC_{16}H_{31}O)_3$ is taken here to represent fats generally.

† The Pollution of Estuaries and Tidal Waters. Report to the Royal Commission on Sewage Disposal, by Professor Letts and Dr. Adeney, p. 101 *et seq.* See Appendix VI.

As regards Dr. McGowan's suggestion, we consider that until the method of calculation which he proposes has been compared with the results of direct experiment on a larger number of *different* sewages, no statement can be made as to its precise accuracy. We have, however, found it convenient to use the method in the preparation of this Report in order to bring results at different places into line.

In later sections we shall frequently define the strength of a sewage or sewage liquor by a number. This number is intended to represent the number of parts, by weight, of dissolved oxygen which 100,000 parts of the liquid would take up during the oxidation of the oxidizable matter contained in such liquid. It will not, however, have been arrived at by direct experiment, but by a calculation, according to the first of the formulæ suggested by Dr. McGowan, and it must therefore only be regarded as approximately representing what it is intended to represent.

22. As bearing on the question of strength of sewage as affecting purification, we may refer to our experiments at Accrington.‡

A double contact bed plant filled with rather fine and graded material was provided in duplicate. On one set of contact beds, septic tank liquor was treated at the rate of 80 gallons per cube yard per day ; on the other set, the same septic tank liquor diluted with an equal volume of tap water was treated at double the rate. The percentage purification was slightly greater in the case of the contact beds treating the weaker liquor.

Two exactly similar percolating filters, 9 feet deep, filled with coarse material, were also provided.

On one filter, septic tank liquor was treated at the rate of 100 gallons per cube yard per day ; on the other filter, the same septic tank liquor diluted with an equal volume of tap water was treated at double the rate. In this case the percentage purification was slightly greater with the filter treating the stronger liquor.

The differences in the percentage purification were, however, in both plants so small that we think it may be taken broadly that, within ordinary limits of concentration and volumes treated, it is the amount and nature of the organic impurity present which mainly determine in practice the ease or difficulty of purification ; in other words, that, within practical limits, mere dilution does not affect the size of the filtering plant which is necessary. Of course if the dilution is so great as to cause water-logging of the filters, their purifying power would be seriously diminished, and this statement would not hold good.

The Accrington experiments are dealt with more fully on pages 110 to 117 of this Report.

‡ *See* Appendix IV. for a full account of these experiments.

PRELIMINARY PROCESSES FOR THE REMOVAL OF SUSPENDED MATTERS.

General Observations.

23. The evidence which we have received and our own experience show that it is generally more economical to remove from the sewage, by a preliminary process, a considerable proportion of the grit and suspended matter, before attempting to oxidize the organic matters on land or in filters.

It is true that at Leeds, Sutton, Hampton, Hendon (the Ducat filter), Market Drayton (the Ducat filter), and elsewhere, crude sewage has been satisfactorily purified in filters with almost complete absence of nuisance, but at most of those places, this plan has been abandoned because of the rapid choking of the filters.

As regards the treatment of crude sewage on filters, we have ourselves made detailed observations at the following places :—

Hampton.	Maidstone.
Hendon.	Newton-le-Willows.
Little Drayton.	Withnell.

Reports on these observations are published in Appendix III.

There are also many cases in which crude sewage has been passed over land, but the evidence shows that land treatment of crude sewage is liable to give rise to nuisance by the accumulation of solids on the surface of the land. Moreover, in some cases these solids are apt to form an impervious layer which interferes with the aeration of the soil, and so impairs the efficiency of the treatment.

Screening.

24. On arriving at the works the sewage is usually passed through coarse screens for the purpose of removing the grosser suspended matters, such as sticks, cloths, paper, corks, etc.

The removal of such suspended matters is almost essential where the sewage has to be pumped, and in other cases it is usually considered an advantage.

Although the amount of suspended matter which is removed by coarse screens bears only a small proportion to the total suspended matter, the screenings have some manurial value, and there is usually no difficulty in getting farmers and others to take them away.

The screens in use are of various kinds, and some are provided with automatic apparatus for clearing them.

Experiments with fine screens were carried out at Leeds,* with a view to ascertaining whether it was practicable to remove a large proportion of the total suspended solids in this way.

With a screen of a mesh of 30 to the inch, however, rather less than 10 per cent. of the total of the suspended matters was removed.

The use of fine screens is always attended with difficulty as they choke readily, and the experience of Leeds seems to show that where tank treatment is provided as a preliminary process, the cost of fine screens would not be justified.

In the circumstances obtaining at Birmingham, Mr. Watson prefers not to screen the sewage, but to allow the whole of the suspended matter to flow, with the sewage, to the first sludge tanks. The sludge itself is screened, to remove the grosser solids, before it is disposed of on land.

* Report on experiments in Sewage Disposal, June, 1905, by Col. T. W. Harding and Mr. Harrison.

Grit or Detritus Tanks.

25. Most of the witnesses whom we have examined favour the removal of the heavy suspended matters, such as grit or road detritus, as a first operation, and our own observations have shown that in most circumstances it is desirable to provide tanks for this purpose.

These tanks are usually designed so that the speed of flow will allow the mineral matters to settle out of the sewage, while the bulk of the organic suspended matters are carried forward.

The extent to which the heavy matters need be settled out of the sewage as a first operation depends in some measure on the subsequent treatment which is to be adopted.

Where septic tanks are to be used which will only be cleaned out at long intervals of time, fairly thorough preliminary settlement of grit is generally desirable. The removal of the sludge which has accumulated over a long period in a septic tank is, as a rule, a matter of difficulty, as the sludge is often so thick that it cannot be pumped unless sewage or water is mixed with it. Much mineral detritus in the sludge increases this difficulty.

We also consider that in the case of septic tanks from which a portion of the sludge will be removed periodically, preliminary settlement of the mineral detritus is, as a rule, desirable. Tanks to be used in this way are generally provided with sludge channels formed in the concrete floor. If the sludge to be drawn off contains much mineral detritus, it will not flow to the channels but will remain in heaps at the side.

In the case of a very small works (flow of sewage up to, say, 10,000 to 15,000 gallons per 24 hours) where septic tanks are used for the preliminary process, the provision of grit or detritus tanks which require constant sludging may necessitate more labour than would otherwise be the case, and in such circumstances it may be more economical to allow everything to go forward into the septic tank. Although the presence of the mineral detritus in the general tank sludge would make the sludging of the tank a more difficult operation, the saving of labour between the intervals of sludging would probably more than balance the extra cost of removing the sludge.

Where precipitation or sedimentation tanks are to be used, and especially if the district is sewered on the combined system, it will, we think, generally be found better to settle out a considerable proportion of the mineral detritus before allowing the sewage to pass into the tanks. The necessity of giving thorough preliminary settlement of the grit is not, however, in these cases of so great importance, for the presence of grit in sludge renders the latter more amenable to pressing and drying.

Sedimentation Tanks.

26. All tanks are sedimentation tanks, but it is convenient to limit the expression to tanks in which the sewage is allowed to settle, without the aid of chemicals, and from which the sludge is frequently removed.

In some cases the tanks are allowed to stand full, and the supernatant liquid is drawn off by a floating arm. In other cases the sewage is allowed to flow through the tanks slowly, but continuously.

Quiescent Sedimentation.

27. Experiments which were carried out at Leeds and Sheffield showed that, with the sewages of those cities, quiescent settlement for two to three hours was sufficient to remove a large proportion of the suspended solids entering the tanks, and to produce a fairly good tank liquor.

No precise rule, however, can be laid down as to the period of quiescence which is required to effect a given reduction of the suspended solids.

Certain kinds of sewage contain more solids which settle very slowly, than other kinds.

For example, a large proportion of the solids in sewages which contain brewery or tannery waste, or wool scouring liquor, are difficult to settle.

To maintain this form of settlement in a highly efficient condition, the deposit in the tank must be removed after every first or second filling.

Continuous Flow Sedimentation.

28. We have had experience of this method of sedimentation at Clifton, Halton, Oswestry, and Dorking. The following table shows the settlement effected at these places:—

Place.	Shape of Tank.	Dimensions of Tank.	Time allowed for settlement.	Rate of flow per minute in inches.	Solids (in parts per 100,000) reduced from
Clifton - -	Rectangular	39′ × 5′ × 4′.	5·3 hours.	1· 7″	49 to 24.
Halton - -	„	25′ × 12′ × 6′.	15·5 „	0·66″	17·7 to 10·7
Oswestry - -	„	70′ × 15′ × 4′ 6″.	4·1 „	3·40″	32·0 to 15·8
Dorking - -	„	18′ 6″ × 4′ 6″ × 4′ 9″.	11·9 „	0·31″	20·8 to 10·1

The amount of settlement does not depend alone on the period of flow, but also on various other factors, such as the shape of the tank, the nature of the suspended matter in the sewage, and the length of time during which the tank is used without being cleaned.

If the tank is not cleaned out frequently, the deposited sludge begins to ferment and the gas produced carries suspended matter with it, as it rises to the surface of the liquid.

As a general rule, if the filters to be used are constructed of fine material, on which it would be undesirable to put a large amount of suspended matter, we consider that the period of flow should be from 10 to 15 hours, and that the tanks should be cleaned out at least once a week.

Before either kind of sedimentation is adopted, the nature of the suspended matter in the sewage which is to be dealt with, and the rate at which it settles, should be considered.

Should Sedimentation Tanks be used in series or in parallel?

29. It would usually be more advantageous to use continuous flow sedimentation tanks in parallel than in series, for the following reasons:—

With tanks of ordinary dimensions, the minimum rate of flow is obtained where the tanks are used in parallel.

As a rule, after a certain percentage of the suspended solids has settled out of a sewage, little further advantage is gained by continuing the same tank treatment, the suspended solids remaining in the supernatant liquid being of low specific gravity, and depositing very slowly unless quiescent settlement is given. In practice, therefore, so soon as this maximum quantity of solids is settled out as a result of continuous flow settlement, little advantage is obtained by passing the liquid through another tank at a similar rate.

If sedimentation tanks are used in series, there is a natural tendency to allow the last tank in the series to run too long without being cleaned out. The result in such a case is that the sludge, lying at the bottom of this tank, even though small in amount, begins to ferment with the formation of gas bubbles, which carry suspended matter up into the liquid.

There is rather more difficulty in cleaning tanks which are used in series than those used in parallel, owing to the fact that the first tank in a series is usually found to contain very thick sludge, which may, in some cases, have to be mixed with sewage before it can be got to flow into the sludge main; while in the last tank the sludge is very thin and watery. At a large works, however, where there are special facilities for removing and dealing with dense sludge, such as would accumulate in the first tank, this difficulty would not be serious.

Our experience with continuous flow settlement tanks used in series has been obtained chiefly at Halton, and, with continuous flow settlement tanks used in parallel, at Oswestry and Shipley. As the same arguments apply to the settlement of precipitated sewage, however, we may also adduce the results of our observations at Kingston, Maidstone, and Hendon, for the use of tanks in series, and at Horfield, for the use of tanks in parallel.

It is desirable to use quiescent settlement tanks in parallel, in order that the period of actual quiescent settlement (*i.e.*, apart from filling or drawing off) should be as long as possible.

Nuisance.

30. Settlement of sewage by sedimentation does not give rise to serious smell during the time the tanks are actually at work. When the tanks are sludged, there is considerable smell, and since tanks used for quiescent settlement have to be sludged more often than those in which there is a continuous flow, there is more liability to recurring nuisance in the former case.

In the case of tanks used for settling domestic sewage, there is only slight local smell during the process of settlement. We have had practically no experience of the sedimentation of sewage containing brewery or tannery refuse in quantity, but in such cases the smell would, no doubt, be markedly increased.

Septic Tanks

31. The notion that the solid matter of sewage would be digested by passing the sewage through a sealed tank is by no means novel, but it does not appear to have had any extensive practical application until Mr. Cameron, who held the office of City Surveyor of Exeter, proposed the adoption of the "septic tank treatment" for that city.

At that time it was claimed that the septic tank possessed the following, among other, advantages:—

That it solved the sludge difficulty, inasmuch as practically all the organic solid matter was digested in the tank.

That it destroyed any pathogenic organisms which there might be in the sewage.

That sewage which had passed through a septic tank was more easily oxidized than sewage from which the solids had been allowed to settle, either with or without the aid of chemicals, in tanks which were frequently cleaned out.

32. As regards the first of these claims, it is now clearly established that, in practice, all the organic solids are not digested by septic tanks, and that the actual amount of digestion varies to some extent with the character of the sewage, the size of the tanks relative to the volume treated, and the frequency of cleansing.

At Huddersfield, Mr. Campbell estimated that about 38 per cent. of the solids were converted into gas or digested; at Leeds, Mr. Harrison put the figure at about 30 per cent.; at Manchester, Dr. Fowler says that possibly, though not certainly, about 25 per cent. of the total suspended matter is digested or converted into gas; at Sheffield, Mr. Haworth puts the digestion at 32·9 per cent., while at Birmingham, Messrs. Watson and O'Shaughnessy say that the figures available indicated a digestion of not more than 10 per cent. of the suspended matter entering the tanks. 21,633 21,994 22,923 23,611 24,985

From careful observations, extending over two years, which we made at Exeter and Ilford, we found that, without allowing a correction for colloidal matters, the digestion at Exeter was about 25 per cent., and at Ilford about 30 per cent.

The sewages of both places were domestic in character: the Ilford sewage was of average strength; and the Exeter sewage about two-thirds as strong. In each case the tank was sufficient to enable it to hold a day's (24 hours) flow, and no sludge was removed from either tank during the experiment. A detailed report of the experiment is contained in Appendix IV.

33. As regards the second claim, we find as a result of a very large number of observations that the sewage issuing from septic tanks is, bacteriologically, almost as impure as the sewage entering the tanks.

34. As regards the third claim, the evidence which we received was conflicting. Some witnesses stated that septic tank liquor was more easily treated than sewage from which the solids had been settled, either with or without the aid of a precipitant, while others expressed a contrary view.

The point is one of great importance in the purification of sewage, and we therefore thought it desirable to investigate it somewhat exactly.

After visiting several places, the Dorking sewage was selected as a suitable domestic sewage with which to experiment, and the Dorking Urban District Council were good enough to grant us the requisite facilities for making the experiment at their works.

For the purpose of the experiment, three identical percolating filters were constructed. One was fed with settled sewage, one with sewage which had been subjected to chemical precipitation, and one with septic tank liquor.

35. The experiment, which was under the supervision of our own resident chemist, Mr. Eric H. Richards, and was carried on for over a year, conclusively proved that in the case of an ordinary domestic sewage, such as that at Dorking, septic tank liquor is not more easily oxidized on its passage through filters than the other liquids.

The experiment is fully reported on by Mr. Richards in his Report, which is published in Appendix IV.

The results of careful experiments previously carried out at Rochdale by Mr. Platt, at Leeds by Mr. Harrison, at Huddersfield by Mr. Campbell, and at Sheffield by Messrs. Wike and Haworth, at all of which places the sewage contains trade effluents from manufacturing processes, agree with our Dorking results.

36. It must, therefore, be said that some of the more important claims which were originally advanced in favour of septic tank treatment have not stood the test of experience. At the same time, we think that in certain circumstances the adoption of this method of treatment, as a preliminary process, is efficient and economical.

Suspended Solids issuing from Septic Tanks.

37. The settlement of the suspended solids in septic tanks is not usually very thorough, and the evidence shows that at many places the liquor issuing from the tanks contains on the average from 15 to 20 parts of suspended solids per 100,000.

At the places which we have had under observation the average figures were as follows:—

SEPTIC TANKS.

Name of place.	Character of sewage.	Suspended solids in original sewage. Parts per 100,000.	Suspended solids in tank liquor. Parts per 100,000.		Time of passage through tanks.
			Average.	*Remarks.*	
Accrington	Strong domestic sewage	38·93	19·40	14·3 shortly after sludging	Once in 42 hours.
Andover	Domestic, containing some brewery refuse.	15·80	11·10	8 months after incomplete sludging.	Once in { 19·3 hours (dry weather flow). 13·1 hours (max. flow).
Caterham	Exceptionally strong domestic	42·10	22·2	1 month after sludging	Apparently 48 hours' flow, when 3 out of the 4 hourly sets were drawn.
Exeter (Main Works)	Strong domestic	37·2	12·50	18 months after sludging	Once in 11·5 hours (dry weather flow).
Exeter (St. Leonards)	Weak domestic	26·10	8·40	12 months after complete sludging.	Once in { 17·8 hours (dry weather flow). 8·6 hours (maximum flow).
Hartley Wintney	Domestic, with a considerable proportion of brewery refuse.	{ 20·10 (dilute winter sewage) 32·7 (dry summer sewage) }	15·10	After 3½ years without sludging	Once in 31·7 hours (dry weather flow).
Guildford	Strong domestic, containing a large proportion of brewery refuse.	42·1	15·9	Tank full of sludge	Once in 36·7 hours.
Knowle	Domestic	19·40	8·42	——	Once in { 15·2 hours (dry weather flow). 3·2 hours (max. flow).
Prestolee	Weak slopwater sewage	5·42	3·17	After 4½ years without sludging	Once in 22 hours (dry weather flow).
Rochdale	Strong manufacturing sewage, containing large quantity of wool scourings, etc.	36·70	5·30	Tank in use for only 3 months	Once in 30 hours.
Slaithwaite	Dilute domestic (mainly slopwater)	10·70	7·10	After 5½ years without sludging	Once in 13·6 hours (dry weather flow).
York	Weak domestic	21·2	5·3	Two tanks, one in use 18 months and the other 6 months.	Once in 26 hours.

It must also be observed that it is generally impracticable to maintain the amount of suspended solids issuing from a septic tank at an approximately uniform level for any length of time ; and, that the amount has a tendency to increase seriously as time goes on.

For example, at Burnley it was found that the suspended matter varied from 15 parts per 100,000, after a few weeks' working, to 35 parts per 100,000 at the end of six months ; at Huddersfield the amounts were 6·6 parts per 100,000 at the commencement and 23·3 parts per 100,000 at the end of eleven months ; at Leeds, from January to June, 1903, starting with a perfectly clean tank, the suspended solids averaged 12·2 parts per 100·000, and from July to December, 1904, the average was 24·1.

The variation in the amount of the suspended solids in the tank liquor increases the difficulty of maintaining the effluent from the filters at a constant level of purity, and the amount of tank liquor which can be properly dealt with on the filters tends to decrease as the amount of the suspended solids in the tank liquor increases.

Cleansing of Septic Tanks.

38. There is no doubt that the longer a tank is run without cleaning, the less *volume* of sludge there will be per million gallons of sewage treated. Digestion, of course, plays some part in this, but only a small part compared with the settling together of the finely divided septic sludge lying at the bottom of the tank. The sludge from a septic tank which is cleaned out at short intervals of time may contain something like 90 to 95 per cent. of water, while, if the tank is allowed to run for, say, two years, the water in the sludge may be only 80 to 85 per cent., or even less. It is obvious that this makes a great difference in the volume of the sludge to be dealt with, provided that it can be removed from the tank in the semi-solid form and without having to be mixed with sewage or water to make it run through the valves.

There is also evidence to show that sludge which has remained in a tank for a long period, say, a year or more, is in some cases less offensive than sludge which has been there for only two or three months. At Birmingham, Leeds, Exeter, and other places this was found to be the case, though, on the other hand, at Guildford, where there is a considerable amount of brewery waste in the sewage, the septic sludge had a very offensive smell when removed from a tank which had been in operation for a period of twelve months.

39. From the point of view of sludge disposal alone, it would be generally advisable to allow septic tanks to run for considerable periods of time before cleaning out, either wholly or partially. There are, however, two other important considerations to be taken into account, viz. :—

The amount of suspended matter issuing in the tank liquor, which greatly increases as time goes on, and

The fact that at a large sewage works it would usually be less easy to deal with very large quantities of sludge at long intervals of time than with smaller quantities at short intervals.

Constant conditions as regards the amount of suspended solids in the liquor issuing from the tank should be aimed at, and from this point of view frequent partial removal of the solids would usually be desirable ; but our experience points to the conclusion that there can be no definite rules as to how long a septic tank should be run without cleaning, and that it must be left to the manager of each works to see that the suspended solids issuing from the tank do not increase to such an extent as to have an injurious effect upon the filters or upon the quality of the filtrate. The point at which injury to the filters or deterioration of the filtrate will occur will largely depend upon the nature and strength of the sewage, the kind of filter used, the size of the material in the filter, and the rate of filtration. At Accrington, for instance, something like fifteen parts of suspended matter in the septic tank liquor can be put upon the coarse percolating filters, without any danger of clogging, whereas at Manchester and Burnley, this would be too much for the contact beds.

Again, the successful working of some forms of fine percolating filter (*e.g.*, that at Friern Barnet), depends upon the time allowed for the drying of the sludge on the surface of the material between two applications of tank liquor. A tank liquor containing, say, 10 parts of suspended matter per 100,000, might be conveniently treated on a filter of this kind, if the delivery were made once every three days; but if it were made once every day, the sludge caught on the surface of the filter would probably not have dried sufficiently to allow of its being scraped off before the next delivery was made.

40. Although the point is not one in regard to which any general rules of a precise character can be laid down, we are inclined to think that in the case of small sewage works, constructed to serve populations of, say, 100 to 10,000, it would be best that septic tanks should be allowed to run, without being cleaned out, so long as the suspended matter in the tank liquor showed no signs of affecting the filters detrimentally, provided that the tanks were never allowed to become more than one-third full of sludge.

In the case of a sewage works constructed to serve populations from 10,000 upwards, we think it would probably be advisable partially to clean out septic tanks at short intervals of time, care being taken as far as possible to remove only the best digested portion of the sludge.

41. With regard to the question whether it is advisable *entirely* to remove the sludge from septic tanks when these are cleaned out, the evidence and our own observations seem to show that this is not advisable. Experiments at Leeds, Rochdale and Dorking have shown that the changes which sewage liquor undergoes in a septic tank are of minor importance as regards subsequent filtration, but the following considerations must be borne in mind:— Cameron, 1902; Harrison; Campbell; Valentine; Wilkinson; Raymond, Ross and Pickles; Watson; Harding; Fowler.

In a septic tank which is to be cleaned out there is always a considerable amount of sludge which has had little time to undergo digestion. If possible, therefore, this part of the sludge should be left in the tank.

One of the main uses of a septic tank is that it has the effect of equalising the sewage as regards strength, and of keeping the character of the liquor uniform.

If a septic tank is cleaned out completely, some weeks may pass before the fermentation of the sludge is in full progress again. It was found, at Birmingham, that, if some of the sludge is left in a septic tank at the time of cleaning, fermentation is hastened when the tank is re-started. At Rochdale, Mr. S. S. Platt has shown that the same effect can be produced by filling a clean and empty tank with septic liquor (from another tank) before any fresh sewage is allowed to pass into it.

Where sludge is removed from septic tanks at long intervals of time, and especially where it is disposed of by burial in the ground, it is of great importance to carry out the operation in dry weather. The success of the plan of disposing of the sludge by burial in the ground depends very largely upon the rapidity with which the sludge can be covered over in the trenches, and this is governed by the state of the ground and the atmospheric conditions prevailing at the time.

Rate of Flow through Septic Tanks.

42. For the reasons which we have already given we consider that the main objects in passing sewage through septic tanks must be looked upon as being:—

The settlement of the suspended matter in the sewage;

The digestion of as much sludge as possible; and

The equalisation of the sewage as regards strength.

43. The most advantageous rate of flow, therefore, is that which gives the maximum settlement and the maximum digestion of sludge, without producing any serious nuisance from smell. It is impossible, however, to lay down any given rate or rates of flow through septic tanks for all sewages, for the following reasons :—

The suspended matter in sewage differs as regards ease of settlement and rate of fermentability at different places. The suspended matter in a strong slopwater sewage, for instance, settles more easily and takes longer to putrefy than the suspended matter in a strong domestic sewage derived from water-closets.

The degree of settlement depends also upon the form of tank adopted. The passing of a sewage through a Dortmund tank, for instance, would no doubt give better settlement than would be the case if a plain rectangular tank were used, but there would probably be less digestion of the sludge.

The qualities necessary in the septic tank liquor may vary at different places. At one place where septic liquor was to be treated upon percolating filters of coarse material, a larger quantity of suspended matter might be allowed to pass away in the liquor, without danger to the filters, than at another place where the liquor was to be treated upon fine-grained filters. Again, where it was of the utmost importance to have as little sludge to deal with as possible, and where the filters could be washed and re-made cheaply, the digestion of the sludge would be of greater importance than the settlement of the suspended matter ; whereas, at another place where ample facilities for dealing with sludge existed and where filtering material could only be obtained at high cost, the reverse would be the case.

The question of smell arising from the septic liquor during its distribution would also assume greater or lesser importance at different places. Generally speaking, very slow passage through the tank tends to increase the risk of nuisance from smell.

In a number of cases, owing to long sewers or to the use of the sewers for storage, the sewage is already in what is called a "septic" condition when it reaches the sewage works.

44. The rate of flow through a septic tank is consequently a matter in which the needs of each place require to be taken into account: but from general experience and a consideration of the evidence, we think it may safely be said that at few places should the sewage remain more than 24 or less than 12 hours in a septic tank. We think therefore, that the total tank capacity, excluding the stand-by * tanks for storm water, should be equal to the total daily dry weather flow. In designing a sewage works where septic tanks were to be adopted, never less than two tanks should be provided, and these should be so constructed that one tank alone could be used at a time. If better settlement became necessary, it might be found that this could be effected by using the tanks in series and adding small quantities of some precipitant to the liquid as it passed into the second tank.

1992 45. Colonel T. W. Harding and Mr. W. H. Harrison carried out a series of experiments at Leeds, in which flows sufficient to fill the septic tanks in 12, 24, 48, and 72 hours were compared. The results showed that at that place, and using simple rectangular tanks, a rate of flow sufficient to fill the tank once in 24 hours was the best economic rate. Rates of flow slower than this gave only slightly better results as regards suspended matter in the tank liquor, and greater rates of flow brought out more suspended matter than it was thought desirable to send on to the filters. The experiments showed also that, if the flow was increased to a rate which filled the tank in 12 hours, the tank

* As to "stand-by" tanks see section dealing with treatment of storm water sewage, p. 204.

became choked with sludge before septic action was induced. The figures of analysis for the different rates of flow are given in the Report on Experiments in Sewage Disposal, City of Leeds, June, 1905, p. 66, as follows :—

Average Analyses referring to the effect of different rates of flow through open Septic Tanks.

Grains per gallon.	12 hours' flow.		24 hours' flow.		48 hours' flow.		72 hours' flow.*	
	Average analysis.	Percentage reduction on crude sewage.	Average analysis.	Percentage reduction on crude sewage.	Average analysis.	Percentage reduction on crude sewage.	Average analysis.	Percentage reduction on crude sewage.
Total solids - - - -	87·7	—	78·2	—	78·3	—	73·9	—
Suspended Solids - - -	19·2	52	11·4	71	10·9	73	9·9	76
Free Ammonia - - - -	1·56	22	1·51	24	1·62	19	1·79	37
Albuminoid Ammonia - -	0·54	50	0·45	58	0·38	64	0·34	52
Oxygen absorbed in 4 hours at 80° F.	5·21	45	4·84	49	4·30	55	3·59	55

* Experiment at later date with weaker sewage.

46. Dr. G. J. Fowler, in his evidence relating to Manchester (May 12th, 1905; answer to Question 22773), says :—

"The most advantageous rate of flow is largely a matter of circumstances. It may be roughly taken from available experience that, with sewage of a strength of 40 gallons per head, about 24 hours' flow is desirable; with a greater flow per head (the organic matter remaining the same) the rate may be correspondingly quicker and, with a less flow, less. Our knowledge on this subject is very imperfect. One may say, at any rate, that time must be given for settlement of the grosser solids and hydrolysis of the lighter suspended matter. Much, of course, depends on the length of travel in the sewer; with a long travel the simple hydrolytic changes will already be almost complete, whereas, on the other hand, in latrine sewage the matter entering the tank may be practically in its original condition. There can be little doubt that the chief activity of the septic tank resides in the sludge and this needs to remain in the tank a very long time for thorough digestion to take place."

In answer to a further question (22979), Dr. Fowler stated that 24 hours' stay in the tank is the longest time he would allow.

Messrs. Watson and O'Shaughnessy, in their evidence relating to Birmingham (May 18th, 1905; answer to Question 24983), say :—

"The actual mean rate of flow through the first set of tanks is ·87 feet per minute, and through the second set of tanks ·32 feet per minute. This rate of flow is sufficient to set up most vigorous fermentation, and results in the destruction of very considerable quantities of organic matter, as evidenced by the copious evolution of gas from the tanks, and by the increase in the amount of 'free ammonia' in the tank liquor. A quicker rate of flow is detrimental to the septic action. The action is continued in the large conduit, the liquor taking something like 6 hours to traverse it. At the end of the conduit is a Dortmund tank installation, and here we have been able to make some interesting observations on the behaviour of this already highly septic liquor. We consider that septic treatment of Birmingham sewage for a period of at least 24 hours to be distinctly advantageous. At the present time this is as much as we can say definitely. The observed effect of additional septic treatment at the end of the conduit, in the Dortmund tank, is a great increase in the number of micro-organisms in the tank liquor. We consider that the rate of flow should depend very largely on the strength and on the character of the particular sewage to be dealt with—a stronger sewage requiring a longer time, and certain constituents of sewage being more easily broken down than others."

47. As regards the question whether it is possible to "over septicise" a sewage, several witnesses have stated that if sewage be kept too long in the tank, the amount of sulphuretted hydrogen produced is considerably increased, and some witnesses have expressed the view that too long a stay tends to impair the subsequent oxidation of the sewage during its passage through the filters.

Should Septic Tanks be closed or open?

48. We are not aware that any comparative observations have been made of the relative merits of closed and open tanks in the case of a domestic sewage, but comparative experiments have been carried out at Birmingham, Burnley, Leeds, and Manchester, which show that, as regards digestion of sludge and quality of tank liquor, the closed tank possesses no advantages over the open tank.

49. In cases, however, where it is important to avoid nuisance from smell, our experience shows that the closed tank is generally preferable.

At Exeter, Yeovil, Andover, Hartley Wintney, and Prestolee, where the tanks are covered in, the smell from the tanks themselves is almost entirely done away with.

At Accrington, Leeds, Rochdale, and Burnley, where the tanks are uncovered, there is, as a rule, appreciable local smell.

At Sheffield, the nuisance arising from the open (experimental) septic tank was so pronounced, that the men on the works raised strong objections.

At Gosport, a very serious nuisance arose from open septic tanks, which was almost entirely done away with by completely roofing over the whole of the tanks and channels at the works.

At Guildford and Carshalton it was found necessary to put a rough covering over the tanks. In both cases the smell was largely diminished as the result.

At Ilford, a substantial roof is now being provided, to diminish the smell.

On the other hand, at Birmingham and Manchester, very little smell arises from the open septic tanks. This is no doubt accounted for by the fact that the sewages contain manufacturing waste, iron salts in the case of Birmingham, and iron salts and tarry matter in the case of Manchester.

50. As regards closed tanks, we may observe that a roof somewhat hampers sludging operations, and further, that care is necessary to avoid explosion of the gas which accumulates under the roof. Serious accidents have been caused by the explosion of the gas in closed septic tanks.

Arrangements for removing Suspended Solids from Septic Tank Liquor before it is delivered to the Filters.

51. So far as we know, none of the attempts to screen septic tank liquor by passing it through a short depth of material have been successful. At Leeds a layer of fairly fine material was suspended in a small septic tank in such a way as to cause the liquor to pass through it before leaving the tank. The sludge lying at the bottom of the tank, in rising to the surface as a result of the evolution of gas completely clogged the bottom of this material and rendered it worse than useless for screening purposes.

At Ilford and Guildford layers of coarse material have been placed at the outlet sills of the tanks, but it appeared to us that this arrangement was ineffective.

At Chester a plan similar to that tried at Leeds was followed, but after a short time the straining material became seriously choked with the suspended matter rising from the bottom of the tank. The tank liquor consequently forcing its way to the surface through special channels, bringing a great deal of suspended matter with it.

52. At Salford, *precipitation liquor* is forced by head of water (5′ 6″) through a layer of medium to coarse gravel (¼ to 1½ inches diameter), three feet in depth, laid at the bottom of some specially constructed tanks, called "Roughing filters." This plan undoubtedly removes a very considerable quantity of the suspended matter from the precipitation liquor. The area of these "Roughing filters" is, however, so small compared to the volume of precipitation liquor to be passed through them, that they can only deal with two-thirds of the flow, the gravel being almost always more or less clogged. About 8,000,000 gallons of precipitation liquor are, on the average, forced through the "Roughing filters" per day, and as the total area of filtering material in the tanks is only 2,040 square yards, the average rate of filtration is roughly 4,000 gallons per square or per cube yard per day. The material in the "Roughing filters" at Salford is washed by upward flow once in every six days, each filter working for five days and resting for one. Once a year the gravel is taken out and thoroughly washed. The average analysis of the Salford precipitation liquor, after it had passed through the roughing filters, is given by Mr. J. Carter Bell, as follows:— Bell, 23207.

1903 and 1904.

	Parts per 100,000.
Oxygen absorbed from permanganate in four hours	4·7
Alkalinity as calcium oxide	3·0
Free and saline Ammonia	1·95
Albuminoid Ammonia	·45
Nitrogen as Nitrates and Nitrites	·172
Chlorine	14·1
Suspended solids	2·9

Mr. Carter Bell stated that it has been found practicable at Salford to remove about 75 per cent. of the suspended matter of the precipitation liquor by means of the roughing filters. 23225

53. At Friern Barnet the precipitated sewage is given a two hours' contact in contact beds, called roughing filters, before it passes to the low level percolating filters. These roughing filters consist of medium-sized clinkers, four feet nine inches in depth. They remove a considerable portion of the suspended matter from the precipitation liquor, and may be looked upon as primary contact beds.

Straining tanks of a somewhat similar kind have been in use at Wimbledon for a number of years. In these, however, the filtering material (three feet in depth) rests on a false bottom, some distance from the bottom of the tank, and the sewage entering at the bottom of the tank flows upward through the material, a large portion of the suspended matter settling upon the floor of the tank underneath the material. The tanks are cleaned at short intervals of time. We believe the plan has been found to work well.

54. At Birmingham Mr. J. D. Watson interposes modified Dortmund tanks between the septic tanks and the continuous filters. He states that the average of nearly a year's observations shows that the Dortmund tanks removed 75 per cent. of the suspended matter from the Birmingham septic tank liquor. It must be remembered, however, in regard to this, that the Birmingham septic tank liquor contained a large quantity of suspended matter, the average amount for the year 1904 being 19·5 parts per 100,000. If Dortmund tanks were used for the settlement of tank liquors containing only small quantities of suspended matter (say five parts per 100,000), they would, we think, probably not be as efficient as some straining method such as that adopted at Salford. Watson, 25001.

55. A special tank has been designed by Dr. Owen Travis for the further removal of suspended and colloidal matter from the septic tank liquor at Hampton. We have not, ourselves, been able to make any observations on this tank.

Lime Precipitation following Septic Tank Treatment.

56. From some experiments which we have carried out at Dorking, we find that, by passing septic tank liquor through tanks of a size sufficient to hold about one quarter of the 24 hours flow, with the addition of from 2 to 3 grains of lime per gallon

to the liquor, the suspended solids are reduced from 8 to 5 parts per 100,000, a considerably larger quantity of the liquor can be purified per cube yard of filter, and the offensive character of the septic tank liquor is largely destroyed. The solids which are chiefly reduced are those which are volatile.

In many cases we think that this combination of septic tank treatment and precipitation will be found to be useful.

We have, however, had no experience of this arrangement on a large scale.

A small quantity of lime (about 1 grain per gallon) has been added to the septic tank liquor at Blackburn for some years with a view to aiding subsequent nitrification on the filters.

Chemical Precipitation.

57. There has been a tendency on the part of certain authorities to regard the chemical precipitation of sewage as an obsolete form of preliminary treatment. Our experience in no way justifies this view, and while we are not able to lay down any precise rules as to the particular cases in which chemical precipitation should be adopted, nor as to the relative cost and efficiency of the various precipitants which are available, we think it may be useful to state generally the results of our observations.

In the case of some sewages, which contain trade waste, it is almost essential to subject the sewage to some form of chemical treatment before attempting to oxidise the organic matter contained in it, and in the case of domestic sewages, chemical precipitation materially aids the deposition of the suspended solids, and facilitates subsequent filtration.

58. The actual amount of suspended solids remaining in the sewage after chemical precipitation varies according to a number of factors, but in the case of a domestic sewage, which is allowed to stand and settle for about 2 hours, it is practicable to produce a tank liquor containing from 1 to 4 parts per 100,000. Where the settlement is effected by continuous flow through the tank, at an 8-hour rate, the suspended solids may be brought down to from 3 to 6 parts per 100,000.

59. Excepting for the results relating to the Dorking sewage, which are given below, we have ourselves made no comparative experiments with regard to the relative cost and efficiency of the various substances used for the precipitation of sewage. We have, however, had some experience of the following precipitants, at works which have been under our observation :—

Lime.
Lime used in conjunction with Copperas (Ferrous Sulphate).
Lime used in conjunction with Alumino-ferric.
Alumino-ferric.
Alumino-ferric used in conjunction with blood, charcoal and clay (A.B.C. process).
Ferrozone.
Ferric Sulphate.
Sulphuric Acid.

At most of the works where domestic sewage has been treated, alumino-ferric has been the precipitant used. At some of the works, this precipitant has displaced ferrozone on the score of economy, and at Chorley, a considerable saving in cost (about £1 per million gallons) was effected by the manufacture of alumino-ferric upon the works.

At Dorking, although we did not experiment with equal aggregate quantities, the results of a series of experiments led us to the conclusion that a better result was obtained from a mixture of lime and alumino-ferric than from alumino-ferric alone.

The same conclusion, we believe, resulted from experiments made by Mr. Creer, the City Engineer of York, with the sewage of that city. Owing to its low solubility in water, lime requires automatic machinery for crushing and mixing before it can be effectively added to the sewage, and for very small sewage works its use would not be economical.

60. The following table gives a list of places where domestic sewage alone, or mixed with small quantities of trade refuse (as a rule brewery or tannery waste), is precipitated, the quantity of precipitant used, the dry weather flow of sewage, and the cost of the precipitant :—

TABLE I.

Place.	Precipitant.	Quantity of precipitant added (in grains per gallon). Based on the dry-weather flow.	Dry weather flow of sewage (treated by the precipitation process).	Character of Sewage.	Cost of precipitant per million gallons. Based on dry-weather flow.	Cost of precipitant per million gallons. Based on average daily flow.	Year.
			Gallons.		£ s. d.	£ s. d.	
Withnell	Alumino-ferric	15·7	10,000	Very strong	5 6 0		1903.
Radcliffe	Alumino-ferric	8·0	800,000			2 15 0	1902, 1903, 1904 & 1905.
Calverley	Alumino-ferric	17·5	12,000	Very strong	2 10 0		1904.
Heywood	Alumino-ferric Ferrozone	8·0 8·0	630,000 630,000	Average strength.		1 7 6 1 6 6	
Guildford	Alumino ferric	8·0	300,000	Very strong	2 2 0	1 4 5	1905.
Horfield	Alumino-ferric	5·0	40,000	Average strength.	1 10 0	0 17 6	1905.
Normanton	Alumino-ferric	6·7	175,000	Very strong	1 5 0		1902 to 1905.
Hendon	Alumino-ferric	5·5	950,000	Rather strong.		0 13 3	1906.
Chorley	Alumino-ferric	9·0	900,000	Average strength.		0 12 10	1902.
Royton	Alumino-ferric	2·22	367,500			0 6 7½	1906.
Buxton	Natural Iron-water Milk of Lime	6–7 6 } 12 to 13	750,000			0 4 6	1906.
Dorking	Lime Alumino-ferric	5·6 3·5 } 9·1	200,000	Average strength.		0 15 8	1902, 1903 & 1904.
Friern Barnet	Lime Alumino-ferric	4·0 2·0 } 6·0	350,000		Lime 5/1 Alumino-ferric 7/7½ }	0 12 8½	
York	Lime Alumino-ferric	5·77 4·3 } 10·0	3,750,000	Average strength, or perhaps under average.		0 10 7	1904–1905.
Willesden	Lime Alumino-ferric	3·85 5·46 } 9·31	1,930,950		Lime 1/5·38 Alumino-ferric 8/6·5 }	0 10 0	
Ealing	Lime Alumino-ferric	4·0 2·0 } 6·0	1,000,000			0 6 9	Three years ending March, 1906.
Leyton	Lime Hanson's Sulphurous Powder	15·0 7·0 } 22·0	3,000,000			3 11 0	1905–1906.
Kingston	Alumino ferric, blood, charcoal, and clay (A.B.C. process)	50·0	2,750,000	Average strength.		3 4 0	1902, 1903 & 1904.
Rochdale	Alumino-ferric Sulphuric Acid	7·3 4·7 } 12·0	2,000,000	Very strong		1 8 7	1904–1905.

NOTE.—It will be observed in the above table that at nearly all the places where lime is used as a precipitant the cost is relatively low. In regard to this, however, it must be stated that the figures of cost refer to the lime alone and do not include any charges with respect to the mixing. This might add, we think, from 2/– to 10/– per million gallons, according to circumstances.

61. In Table II. some of the places where we have made special observations are arranged in the order of percentage reduction in suspended matters. The figures for Withnell and Calverley are not included, the flow of sewage at those places being too small for proper comparison with the others.

TABLE II.

Place.	Precipitant.	Percentage reduction of suspended matter in the crude sewage.	Amount of precipitant added in grains per gallon. Based on dry-weather flow.	Actual amount of suspended matter left in the precipitation liquor (parts per 100,000).	Cost of precipitant alone per million gallons, based on the average daily flow.	Strength of precipitation liquor calculated on the basis suggested by Dr. McGowan, *see* p. 16.	Strength of crude sewage calculated in a similar manner.
					£ s. d.		
Kingston -	Alumino-ferric, blood, charcoal, and clay (A.B.C. process)	95	50·0	1·5	3 4 0	51	94
Horfield - -	Alumino-ferric	93	5·0	2·5	17 6 (approx.)	36	88
Chorley - -	Alumino-ferric	91	9·0	2·9	1 0 2*	50	106
Heywood -	Alumino-ferric	82	8·0	5·0	1 7 6	42 (approx.)	
Dorking - -	Lime -	82	9·0	7·0	15 8 (approx.)	about 60	95
Hendon - -	Alumino-ferric	80	5·5	5·5	13 3	58	110
Rochdale - -	Alumino-ferric and sulphuric acid	79	12·0	7·8	1 8 7	77	203
Guildford -	Alumino-ferric	75	6·5	14·6	1 4 5	171	194
Normanton -	Alumino-ferric	67	6·7	18·0	1 5 0	112	235
York - -	Lime and alumino-ferric	64	10·0	7·7	10 6	63	115

62. In comparing the costs in Table II., the influence which the suspended matter left in the liquor has upon the life of the filter-beds, used subsequently, must be specially borne in mind. For instance, according to their calculated strengths, the Kingston and Chorley precipitation liquors would require about equal filter areas, but the Kingston liquor only contains 1·5 parts per 100,000 of suspended solids against 2·9 parts in the Chorley liquor, and on the assumption that the rate of clogging is broadly in proportion to the amount of suspended matter in the liquor treated, if the two liquids were treated upon equal areas of *contact* beds, the filtering material would require washing twice as often at Chorley as at Kingston. The amount of colloidal matter is not great in either liquor.

The A.B.C. process is, undoubtedly, a very efficient form of chemical precipitation, and the dried sludge produced at Kingston is sold by the company.

In regard to all tank processes, it may be remarked that the greater the amount of suspended matter in the original sewage, the easier it is to obtain a good *percentage* reduction of the suspended solids.

* This figure applies to the year 1900, when the alumino-ferric was bought. At the present time (1906), when the alumino-ferric is made on the works, the cost of precipitation per million gallons is 12*s.* 10*d.*

63. In the experiments carried out under the Massachusetts State Board of Health, Mr. Allan Hazen compared lime, lime and ferrous sulphate, ferric sulphate and aluminum sulphate as used in various quantities upon the St. Lawrence sewage during the year 1889 (Report of experiments upon the chemical precipitation of sewage. State Board of Health, Massachusetts, 1890). The sewage was a very weak one.

The following are quotations from the summaries given in the Report by Mr. Hazen on these experiments:—

The Comparative Advantages of the Different Precipitants.

"It does not seem to me that the slight colour given by the use of iron "should be considered an objection in judging the merits of the different "processes. It should be remembered that when alum is used, a small "portion of the alumina is really present in the effluent, but being white, it "is not noticed as is a corresponding amount of iron.

"The lime process has little to recommend it. Owing to the large amount "of lime-water required and the difficulty of accurately adjusting the lime to "the sewage, very close supervision would be required to obtain a good "result, and, even then, the result is inferior to that obtained in other "ways.

"Precipitation by copperas is also somewhat complicated, owing to "the necessity of getting the right amount of lime mixed with the sewage "before adding the copperas. When this is done, a good result is obtained. "The amount of iron left in the effluent is much greater than the ferric "sulphate owing to the great solubility of ferrous hydroxide.

"Ferric sulphate and alum have the advantage over both lime and "copperas, that their addition in concentrated solution can be accurately "controlled, and the success of the operation does not depend upon the "accurate adjustment of lime or any chemical to the sewage. The results "with ferric sulphate have been, on the whole, more satisfactory than those "with alum. This seems to be due in part to the greater rapidity with "which precipitation takes place and in part to the greater weight of the "precipitate. It is probable, from the greater ease with which ferric "sulphate is precipitated, that it would give a good result, with a sewage "that was not sufficiently alkaline, to precipitate alum at once. It is quite "possible that the same process would not give equally good results upon "all kinds of sewage. Special sewages may require special treatment. "For this reason, and also on account of changes in the prices of the several "chemicals, it is impossible to say that one precipitant is universally better "than another."

Conclusions.

"Using equal values [*i.e.*, as regards price] of the different precipitants, "applied under the most favourable conditions for each, upon the same "sewage, the best results were obtained with ferric sulphate. Nearly as "good results were obtained with copperas and lime used together, while "lime and alum each gave somewhat inferior effluents. The range of these "results was, however, comparatively narrow; and it may be that with a "sewage of a different character, or with variations in the prices of the "chemicals, it would be advantageous to use copperas with lime, or even "alum. When lime is used, there is always so much lime left in solution "that it is doubtful if its use would ever be found satisfactory except in "case of acid sewage."

64. Various comparative experiments with precipitants have been made at a number of large towns and cities in this country; for instance, at Glasgow, amongst other experiments of the same kind, Mr. Thomas Melvin has experimented with sulphate of alumina and ferric sulphate, both used in conjunction with lime. The sulphate of alumina (44·5% $Al_2(SO_4)_3$), which was bought, cost 33s. per ton, while the ferric sulphate (9% Fe), made upon the works, cost 11s. 3d. per ton. In each of the trials (which extended over long periods) 8 grains per gallon of the precipitant were used in conjunction with 4 grains per gallon of lime. We understand that ferric sulphate and lime always gave the better result.

Sir Thomas Wardle ("Sewage Treatment and Disposal") also obtained good precipitation results by the use of a mixture containing basic ferric sulphate as its chief ingredient.

Fowler, 22758. In his evidence relating to Manchester Dr. G. J. Fowler stated:—

> "I have had experience with various chemicals, viz., lime and copperas, "ferric salts and alumino-ferric, but have not gone very exhaustively into "their various merits. Lime and copperas give a precipitate which readily "settles, and lime is useful where flushes of acid have to be neutralised. On "the other hand, their use requires constant and skilled supervision, and "is therefore less suitable for small works than alumino-ferric, where a given "quantity can be added from time to time and be left to dissolve in the "incoming sewage. Ferric salts I have not found to give so rapid pre- "cipitation as either the lime and copperas or the alumino-ferric. The "precipitate appears more finely divided than either of the others. More- "over, ferric salts, unless made on the works, are not readily obtained in "the quickly soluble and, at the same time, transportable condition. The "following are prices per ton delivered at or near Davyhulme, showing that "for equal weights, lime and copperas are undoubtedly cheaper than "alumino-ferric:—
>
> | | |
> |---|---|
> | "Lime ... ... | 11s. 6d. |
> | "Copperas ... ... | 21s. 6d. |
> | "Alumino-ferric ... ... | 40s. 0d. |
> | "Ferric sulphate ... ... | 23s. 6d. |
>
> "These prices will, of course, vary in different parts of the country."

Watson 24968. Mr. J. D. Watson and Mr. F. R. O'Shaughnessy, in their evidence relating to Birmingham, stated:—

> "Milk of lime added to the crude sewage was used as a chemical "precipitant for many years, and was totally discontinued in February, 1901. "During the last twelve months of this process the tank capacity at the out- "fall works consisted of two installations of tanks, which were worked in "series. The mean period of sedimentation in the preliminary tanks was "3½ hours, and in the secondary installation of tanks the mean period of "sedimentation amounted to 5½ hours, giving a total mean period of "sedimentation for the limed crude sewage of 9 hours. The flow of sewage "for the last twelve months of the process was estimated at twenty million "gallons per day. The proportion of lime added to the crude sewage was "12 grains per gallon, being the equivalent to a quantity of 15 tons 6 cwts. "dry lime used daily.
>
> "The following analysis will indicate the effect of this liming process "upon the crude sewage:—

Year 1900.	Parts per 100,000.	
	Dissolved Solids.	Suspended Solids.
Crude Sewage - - - - -	129·1	67·6
Preliminary Tank Liquor - - -	138	16·3
Final Tank Liquor - - - - -	133·2	4·2*

Harrison, 21979. Mr. Harrison, in his evidence relating to Leeds, stated:—

> "Several precipitants have been tried upon the Leeds sewage in order "to obtain their relative values, but the question of cost has not been

* It must be borne in mind that the Birmingham sewage contains iron salts in considerable quantity, so these good results cannot be ascribed to the lime alone.

"considered. The most effective precipitant was a mixture of ferric salt and "lime, closely followed in merit by aluminum sulphate and lime. These two "precipitants were almost equally effective, and were followed in order of "merit by alum and lime, ferrous sulphate and lime, ferric salts, alum and "ferrous sulphate. The last was practically valueless."

Mr. Carter Bell in his evidence relating to Salford, stated:— Bell, 23218.

"We have tried many systems of sewage purification and combinations "of chemicals. The best and most economical results have been obtained by "the use of lime followed by salts of iron."

Mr. Bolton, in his evidence relating to Heywood, stated:— Bolton, 21107.

"I have tried various chemicals. Iron and alumina compounds have "been used under such trade names as alumite, kremnolite, ferrozone, "alumino-ferric, etc. Alumino-ferric is the best precipitant tried at "Heywood. With an addition of 8 grains per gallon, a purification of "62 per cent. is brought about. This equals £1 7s. 6d. per million gallons. "Ferrozone under the same conditions brought about a purification of 57 "per cent., equal to a cost of £1 6s. 6d. per million gallons. Thus, for 3·6 "per cent. reduction in price 8 per cent. less purification was obtained "by ferrozone."

65. Where the sewage, by reason of the discharge of large quantities of trade refuse, is of a special character, special precipitants have, of course, to be used.

At Bradford, where there is a very large proportion of wool-scouring refuse in the sewage, sulphuric acid is used as the precipitant, in order to separate the fat, which is afterwards extracted from the sludge.

At Rochdale, where on several days of the week, owing to the discharge of wool-scouring refuse, the sewage resembles that of Bradford, sulphuric acid is used to neutralise the alkali in the wool-scouring refuse *after* the precipitation of the sewage with alumino-ferric.

At Burton-on-Trent, where there is a largely preponderating quantity of brewery waste in the sewage, very large quantities of lime have to be added.

Ways of adding chemicals.

66. Chemicals are most effective in precipitating a sewage when they are added in the form of a solution.

In practice, however, the addition of a solution of precipitant to a sewage is not always so economical or effective as the use of the precipitant in a solid form, owing to the fact that it is advisable to vary the quantity of the solution with the varying strength of the incoming sewage—a matter of some difficulty at a small works.

At a large works, where the addition of the chemicals can be properly supervised, we should think that, with the exception of lime, all chemicals should be added in the form of a solution. Lime is best added in the form of milk of lime, as it is not very soluble in water, and its addition in solution, involves the use of large quantities of water or sewage.

At medium-sized or small works it is usually found best, for economy of labour, to add such precipitants as alumino-ferric or ferrozone in the form of a solid block, placing the block in the sewage channel so that the top of it projects above the level of the sewage. In this way the largest quantities of precipitant are dissolved at those times of the day when the flow of sewage is greatest.

67. At Horfield and Hendon we found a simple and effective way of adding alumino-ferric in the form of a solution. The quantity of precipitant required for about 24 hours was, each morning, put into a box with a false bottom, and the alumino-ferric was dissolved by allowing water to drip on to it. During the daytime, when the box was full of precipitant, and when the sewage was strongest, a larger amount of the alumino-ferric was delivered to the sewage, owing to the solution being then stronger than it was at night, when almost all the precipitant had dissolved away. Moreover, the dose could be varied at will by increasing the flow of water.

This plan appeared to us to be rather more effective than the method of placing blocks of the precipitant in the sewage channels, though that method is also in the main satisfactory.

We have had no experience of copperas used alone; in the cases that have been brought to our notice, it has been used along with milk of lime. In these cases it has usually been found best to add it after the lime.

Immediately after the addition of any chemicals the sewage should be churned up so as to produce a thorough mixture. This can be done effectively by some mechanical apparatus or by baffling boards.

Some Observations as to the Relative Cost of various Preliminary Processes.

68. Local conditions and circumstances must always be the first consideration in the selection of a process for the preliminary settlement of the sewage of any particular place, and it is not possible to give figures of cost which would apply generally.

We think, however, it will be useful to compare the various processes in common use in a hypothetical case in which we assume :—

That ample fall is available;
That the sewage is of a normal domestic character and of average strength;
That the flow of sewage is 1,000,000 gallons per day in dry weather;
That all tanks are of simple construction, and rectangular in shape.

The processes which we propose to compare are :—

Septic tanks;
Continuous flow settlement without chemicals;
Quiescent settlement without chemicals;
Continuous flow settlement with chemicals;
Quiescent settlement with chemicals.

Comparative Capacities of Tanks.

69. From our general experience and from a consideration of the evidence we think the various lengths of time required for settlement and the number of tanks may, for the purpose of this comparison, be those shewn in the following table:—

Preliminary Process (arranged in order of tank capacity).	Stay in Tanks.	Total Number of Tanks.	Number of Spare Tanks.	*Total Capacity of Tanks required (gallons).
Continuous flow settlement with chemicals	8 hours	8	2	444,440
Continuous flow settlement without chemicals	15 hours	8	2	833,333
Quiescent settlement with chemicals	2 hours	10	2	1,041,660
Quiescent settlement without chemicals	2 hours	10	2	1,041,660
Septic tanks	24 hours	6	1	1,200,000

* The tanks would be sufficiently large to deal with 3,000,000 gallons per day in times of storm.

Initial Cost of Tanks.

70. From these estimates of the total tank capacities, Mr. G. B. Kershaw, our Engineer, has prepared drawings for each preliminary process, from which he has taken out complete quantities, and prepared the following estimates :—

Preliminary Process (arranged in order of cost).	Constructional Cost of Tanks.
Continuous flow settlement with chemicals	£3,797
Continuous flow settlement without chemicals	£5,112
Quiescent settlement with chemical	£5,987
Quiescent settlement without chemicals	£5,987
Septic tanks (open)	£6,891

Cost of Chemicals.

71. Several different substances are used in practice for the precipitation of sewage, dependent to some extent on the kind of sewage to be dealt with. For the precipitation of domestic sewage of about average strength, however, alumino-ferric is by far the most common and we have adopted this precipitant in our hypothetical case. The average quantity of the precipitant used may be put at about 10 grains per gallon (or 14·3 parts per 100,000). The cost of alumino-ferric varies at different places; but taking it at £2 5s. per ton, the cost of chemicals work out at £523 15s. per year or £1 8s. 8d. per million gallons of sewage (dry weather flow).

Production of Sludge.

72. We think it may be taken that, on the average, domestic sewage contains about 35 parts of suspended matter per 100,000 in dry weather, and that 1,000,000 gallons of domestic sewage would, in dry weather, produce approximately 1 ton 11 cwt. of *dry* sludge, *i.e.*, sludge containing no moisture. Where the quantity of alumino-ferric added is not excessive, practically the whole of its alumina is thrown out of solution, and since there is considerable evidence to show that small quantities of dissolved or colloidal sewage matter are also precipitated, we may assume for the purposes of this argument that, in addition to the 35 parts of suspended matter in the sewage, something like 5 parts of additional solid matter* must be taken into account. We assume, therefore, that our hypothetical sewage, with its precipitant, contains 35+5=40 parts per 100,000 of suspended matter as it enters the tanks. From this must be deducted the amount of suspended matter issuing in the tank liquor, and, from a large general experience, we estimate that the addition of 10 grains per gallon of alumino-ferric to our hypothetical sewage would produce a tank liquor containing on the average about 2·5 parts per 100,000 of suspended matter if quiescent settlement were adopted, and about 4·5 parts per 100,000 if continuous flow settlement were adopted. On this basis the dry solid matter left in the settling tanks as the result of these two preliminary processes would be as follows :—

	Parts per 100,000.
Chemical precipitation followed by quiescent settlement	35+5−2·5=37·5
Chemical precipitation followed by continuous flow settlement	35+5−4·5=35·5

73. With settlement of sewage without chemicals, we estimate that the quantity of suspended matter issuing in the tank liquor would be approximately 7 parts per 100,000 after quiescent settlement, and 10 parts per 100,000 after continuous flow settlement. The dry solid matter left in the tanks, therefore, would be :—

	Parts per 100,000.
Quiescent settlement, without chemicals	35−7 =28
Continuous flow settlement, without chemicals	35−10=25

* Alumino-ferric contains roughly 50 per cent. by weight of $Al_2(SO_4)_3$. If the whole of the alumina were precipitated by the sewage 14·3 parts per 100,000 of alumino-ferric would thus give approximately 2 parts per 100,000 of dry Al_2O_3. To the alumina must be added the colloidal matter thrown down by the action of the alumino-ferric upon the sewage, and we have estimated this at approximately 3 parts per 100,000. The latter figure has, however, been obtained from a comparatively small number of analyses.

74. In the case of septic tanks the digestion of sludge must be taken into account, as well as the amount of suspended matter carried away in the tank liquor. The digestion of sludge from a domestic sewage may be put approximately at 30 per cent. of the total suspended matter entering the septic tank, and on the average the liquor issuing from the septic tank would contain 10 parts of suspended matter. On this basis, the amount of sludge left in the septic tank would be $35 - 10 - 10 \cdot 5 = 14 \cdot 5$ parts per 100,000.

75. The production of sludge in our five preliminary processes of settlement would, therefore, be represented by the following figures :—

Preliminary Process.	Sludge left in Tanks (in parts per 100,000).
Quiescent settlement with chemicals	37·5
Continuous flow settlement with chemicals	35·5
Quiescent settlement without chemicals	28·0
Continuous flow settlement without chemicals	25·0
Septic tanks	14·5

Taking the average percentage of water in the sludges generally at 90, we obtain the following figures for the production of wet sludge by each preliminary process per 1,000,000 gallons :—

Preliminary Process.	Wet sludge (90 per cent. water) produced per million gallons of sewage (dry weather flow).
Quiescent settlement with chemicals	17 tons
Continuous flow settlement with chemicals	16 „
Quiescent settlement without chemicals	12 „
Continuous flow settlement without chemicals	11 „
Septic tanks	6·5 „

Cost of Labour.

(*a*) Disposal of Sludge.

76. The various methods of disposing of sludge are not in every case suited to each kind of sludge. Septic tank sludge, for instance, is rather difficult to press, being usually greasy. For the purposes of comparison we have selected the plan of shallow burial in the soil, as this method is for practical purposes equally well suited for the disposal of the sludge from each preliminary process.

For the burial of 1,000 tons a year of wet sludge (90 per cent. water), we estimate that one acre of land with soil of good or medium quality is necessary. On this basis the following areas would be required for the burial of the sludge from the various preliminary processes :—

Preliminary Process.	Quantity of wet sludge (90 per cent. water) produced per annum.	Area of Land required.
Quiescent settlement with chemicals	6,205 tons	6·20 acres
Continuous flow settlement with chemicals	5,840 „	5·84 „
Quiescent settlement without chemicals	4,380 „	4·38 „
Continuous flow settlement without chemicals	4,015 „	4·01 „
Septic tanks	2,372 „	2·37 „

The trenching of this land and the covering of the sludge would probably require the whole time of two men in the case of the two chemical precipitation processes and the quiescent settlement process, and one man in the case of the continuous flow settlement process.

In the case of the septic tank process additional labour would only be required when the tanks came to be cleaned out, say, twice a year. On the assumption that the services of some six men would be required for a fortnight on these occasions, we estimate that this would involve a labour expenditure of about £30 per annum.

Taking labourer's time at 21s. a week, and including one-third of the manager's time at a salary of £130 per annum, the labour cost in connection with the sludge trenching would be as follows :—

Preliminary Process.	Cost of labour and Supervision in connection with the Disposal of Sludge on the Land.	
	Per annum.	Per million gallons of sewage (dry weather flow).
	£	s. d.
Quiescent settlement with chemicals	152	8 4
Continuous flow settlement with chemicals	152	8 4
Quiescent settlement without chemicals	152	8 4
Continuous flow settlement without chemicals	98	5 4
Septic tanks	73	4 0

(*b*) Working and Sludging of Tanks.

77. For the working and sludging of the tanks we estimate that the services of three men would be required in the case of the two chemical precipitation processes and in that of quiescent settlement, and of two men in the case of the continuous flow settlement process and the septic tank process.

Taking labourers' time at 21s. a week, and including one-third of the manager's time, at the salary of £130 per annum, we obtain the following figures :—

Preliminary Process.	Labour and Supervision in connection with Tanks.	
	Per annum.	Per million gallons of sewage (dry weather flow).
	£	s. d.
Quiescent settlement with chemicals	208	11 5
Continuous flow settlement with chemicals	208	11 5
Quiescent settlement without chemicals	208	11 5
Continuous flow settlement without chemicals	152	8 4
Septic tanks	152	8 4

Loan Charges.

78. Taking the price of land at £100 per acre, and assuming that the loan is raised at 3½ per cent interest per annum and is repayable in equal annual instalments in thirty years, the annual loan charges in respect of the initial cost of tanks and of the land on

which the tanks are constructed and in which the sludge is buried would be as shown in the following table:—

Preliminary Process.	Loan Charges.					
	Per annum.			Per million gallons of sewage (dry weather flow).		
	£	s.	d.	£	s.	d.
Quiescent settlement with chemicals	374	5	9	1	0	6
Continuous flow settlement with chemicals	251	4	11	0	13	9
Quiescent settlement without chemicals	364	7	9	0	19	11
Continuous flow settlement without chemicals	314	12	8	0	17	3
Septic tanks	404	4	11	1	2	2

Total Cost of the Preliminary Processes.

79. Arranged in the order of their total annual cost, including repayment of principal and interest on loans, the five processes are as follows:—

	£	s.	d.
Continuous flow settlement without chemicals	564	12	8
Septic tanks (open tanks)	629	4	11
Quiescent settlement without chemicals	724	7	9
Continuous flow settlement with chemicals	1,134	19	11
Quiescent settlement with chemicals	1,258	0	9

The details are:—

Per Annum.

Preliminary Process.	Chemicals.			Labour and Supervision.	Loan Charges.			Total.		
	£	s.	d.	£	£	s.	d.	£	s.	d.
Quiescent settlement with chemicals.	523	15	0	360	374	5	9	1,258	0	9
Continuous flow settlement with chemicals.	523	15	0	360	251	4	11	1,134	19	11
Quiescent settlement without chemicals.	—			360	364	7	9	724	7	9
Continuous flow settlement without chemicals.	—			250	314	12	8	564	12	8
Septic tanks	—			225	404	4	11	629	4	11

Per Million Gallons of Sewage (dry weather flow).

Preliminary Process.	Chemicals.			Labour and Supervision.		Loan Charges.			Total		
	£	s.	d.	s.	d.	£	s.	d.	£	s.	d.
Quiescent settlement with chemicals.	1	8	8	19	9	1	0	6	3	8	11
Continuous flow settlement with chemicals.	1	8	8	19	9	0	13	9	3	2	2
Quiescent settlement without chemicals.	—			19	9	0	19	11	1	19	8
Continuous flow settlement without chemicals.	—			13	8	0	17	3	1	10	11
Septic tanks	—			12	4	1	2	2	1	14	6

In so far, therefore, as the preliminary tank process by itself is concerned, it will be seen that, *on the basis of the above calculations*, settlement either by continuous flow or in open septic tanks is only half as costly as chemical precipitation. It will be noted that quiescent settlement, as compared with continuous flow settlement, does not add greatly to the total annual cost, while it gives distinctly better results.

Filtration of Tank Liquor.

80. In most cases sewage must not only be settled, but must also be filtered, and it is therefore desirable to consider the cost of the preliminary process *in conjunction with* the final or filtration process.

"Strength" of the Liquors Produced.

From the data obtained at Dorking, Leeds, and Huddersfield, where chemical precipitation (continuous flow), settlement without chemicals (continuous flow) and septic tank treatment, have been compared on the same sewage, and from our general experience, we estimate the strengths* of the five tank liquors which would be produced from our hypothetical domestic sewage, and the approximate amount of suspended matter which would be contained in each, as follows :—

Preliminary Process.	* Strength of Sewage.	* Strength of Tank Liquor	Average Amount of Suspended Matter in Tank Liquor.
Quiescent settlement with chemicals	100	50	1 to 4 parts
Continuous flow settlement with chemicals	100	60	3 „ 6 „
Quiescent settlement without chemicals	100	70	5 „ 8 „
Continuous flow settlement without chemicals	100	80	10 „ 15 „
Septic tanks	100	80	10 „ 15 „

Final Purification of the Tank Liquors.

81. On the grounds set out in a later section of this report, we consider that the amount of tank liquor which can be treated on a filter depends upon the strength of the liquor and the amount of suspended matter which it contains, and further, that some filters are more suitable for the filtration of certain kinds of tank liquor than others. For the purpose of our present comparison we have selected percolating filters composed of rather coarse material, say, 1 to 3 inches in diameter. The rate of filtration at which such filters could be used with each of the five preliminary processes, so as to yield satisfactory effluents, is shown in the following table :—

Preliminary Process.	Strength of Tank Liquor.	Amount of Suspended Matter in Tank Liquor (parts per 100,000).	Rate of Filtration per cube yard per day (dry weather flow).	Cubic Content of Filtering Material required to treat 1 million gallons per day (dry weather flow).
			gallons.	cubic yards.
Quiescent settlement with chemicals	50	1 to 4	175	5,714
Continuous flow settlement with chemicals	60	3 „ 6	150	6,666
Quiescent settlement without chemicals	70	5 „ 8	100–125	8,928
Continuous flow settlement without chemicals	80	10 „ 15	75–100	11,494
Septic tanks	80	10 „ 15	75–100	11,494

* The strength is calculated on the basis of the formula suggested by Dr. McGowan, *see* page 16.

The total annual cost of five sets of percolating filters of coarse material, we have calculated to be as follows* :—

Preliminary Process.	Total Cost of Filtration, including loan charges.	
	Per annum.	Per million gallons (dry weather flow).
	£ s. d.	£ s. d.
Quiescent settlement with chemicals	572 19 7	1 11 5
Continuous flow settlement with chemicals	661 11 3	1 16 3
Quiescent settlement without chemicals	766 9 2	2 1 11
Continuous flow settlement without chemicals	960 8 5	2 12 8
Septic tanks	960 8 5	2 12 8

The total cost of the complete treatment in each case (loan charges included) would therefore be as follows :—

Per Annum.

Preliminary Process.	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total Cost of complete Treatment.
	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement with chemicals	1,258 0 9	572 19 7	1,831 0 4
Continuous flow settlement with chemicals	1,134 19 11	661 11 3	1,796 11 2
Quiescent settlement without chemicals	724 7 9	766 9 2	1,490 16 11
Continuous flow settlement without chemicals	564 12 8	960 8 5	1,525 1 1
Septic tanks	629 4 11	960 8 5	1,589 13 4

Per Million Gallons (dry weather flow.)

Preliminary Process.	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total Cost of complete Treatment.
	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement with chemicals	3 8 11	1 11 5	5 0 4
Continuous flow settlement with chemicals	3 2 2	1 16 3	4 18 5
Quiescent settlement without chemicals	1 19 8	2 1 11	4 1 7
Continuous flow settlement without chemicals	1 10 11	2 12 8	4 3 7
Septic tanks	1 14 6	2 12 8	4 7 2

* *See* page 105.

Arranged in the order of cost the five complete processes are as follows :—

	Total Cost per Annum.			Total Cost per Million Gallons. (dry weather flow).		
	£	s.	d.	£	s.	d.
Quiescent settlement without chemicals	1,490	16	11	4	1	7
Continuous flow settlement without chemicals	1,525	1	1	4	3	7
Septic tanks (open)	1,589	13	4	4	7	2
Continuous flow settlement with chemicals	1,796	11	2	4	18	5
Quiescent settlement with chemicals	1,831	0	4	5	0	4

Conclusions.

82. The above figures have been arrived at by making a number of assumptions, but they are based upon a large mass of evidence and experience.

We have not had an opportunity of making comparative observations, as regards all the processes, at one place.

The figures show that there is little difference as regards annual cost between the processes of quiescent and continuous flow settlement of sewage and septic tank settlement, when these are adopted in conjunction with percolation through filters of coarse material, the maximum difference being only 6 per cent. On the other hand, the two processes of chemical precipitation are from 20 to 25 per cent. more costly than the cheapest of the simple settlement processes. As regards this point, however, it must be remarked that sewage which has undergone chemical precipitation contains less suspended and colloidal matter than sewage which has been passed through a septic tank, or than sewage which has been settled without chemicals, and therefore it can be treated on a filter of finer material, and in that case a smaller number of cubic yards of material than we have allowed for in this comparison would suffice for its purification.

In this connection, it may also be pointed out that, where sewage is freed, as far as possible, from suspended matter, a large extra quantity may, in times of storms, be passed through coarse percolating filters, without injury to the filters.*

In the absence of special circumstances favouring a particular plan, it would appear that there is very little difference in annual cost between the various methods of tank treatment followed by filtration through percolating filters, assuming that the kind of filter adopted in each case is that which is best adapted to the particular tank treatment provided.

Some Observations on the Choice of Tank Treatment.

83. The form of preliminary treatment which should be adopted at a given place should depend *mainly* upon the means at hand for the disposal of sludge, and upon the class of filter to be used in the subsequent filtration of the tank liquor. If fine filters are to be used for the oxidation of the tank liquor, the tank treatment should generally be such as will eliminate a large proportion of the suspended and colloidal matter.

We shall make some further observations on this aspect of the question in the section dealing with filters. With a tank liquor of given strength, and containing a given quantity of suspended and colloidal matter, it is of little consequence, as regards the subsequent filtration, by what method of preliminary treatment this liquor has been obtained.†

* *See* Leeds Report 1905, pp. 114, 115.

† From the result of the experiments at present in progress at Dorking, the above statement may have to be somewhat modified. The neutralisation of the sulphuretted hydrogen of the septic liquor and the slightly increased alkalinity given by the lime appear to allow of a very considerable increase in the volume which may be filtered per cubic yard, greater than would follow from the mere reduction in suspended solids effected by this precipitation.

The nature of the sewage to be treated should, however, be considered in selecting the tank treatment to be adopted.

Domestic sewages may be divided into three classes, viz. :—

(1) Domestic sewages which are very strong ;

(2) Domestic sewages of about average strength ; and

(3) Weak domestic sewages.

Domestic Sewages which are very Strong.

84. Very strong sewages, derived from towns where the water-closet system is in vogue, contain more suspended and colloidal matter than weak sewages. Our analyses, so far as they go, have shown that the actual proportion of colloidal to suspended matter in sewage is not great ; but since the amount of colloidal matter is frequently somewhat larger in a septic tank liquor than in its corresponding sewage, the proportion of colloidal to suspended matter in a strong septic tank liquor may be considerable. Such a liquor would exercise a greater clogging effect upon a filter of fine or medium-sized material than its figure for " suspended solids " would lead one to expect. Moreover, the septic liquor and sludge produced from such a sewage would almost certainly give rise to considerable smell, and if the sewage contained much brewery or tannery waste the smell would be still more pronounced.

Where sewage has to be pumped its character may be abnormal. It may remain for a considerable time in the main sewer or sewers, and become " septic " in character before it reaches the outfall. Moreover, in such cases, surface water is often rigorously excluded so as to diminish the cost of pumping, and the strength of the sewage is thus increased.

In the majority of cases we think it would probably be better to adopt chemical precipitation rather than septic tanks as the preliminary process for very strong water-closet domestic sewages, and especially would this be the case if the sewage contained an appreciable quantity of brewery or tannery waste.* Precipitation with chemicals has the effect of throwing down, as sludge, a considerable proportion of the colloidal matter present, and some precipitants have the power of retarding for a short time the putrefaction of the sludge, so that precipitation sludge, if removed from the tanks at short intervals of time, can usually be disposed of with less danger of nuisance than septic tank sludge. It may also be remarked that the addition of lime to a putrid domestic sewage is followed by a great diminution of the smell.

Moreover, chemically precipitated sludge is, volume for volume, usually much less costly to press than septic tank sludge, especially if it is derived from a strong domestic sewage of the kind indicated above ; indeed the quantity of lime which has to be added to some septic tank sludges makes the cost of pressing almost prohibitive.

Simple sedimentation of a sewage of this class would also be less advantageous than chemical precipitation. Little colloidal matter would be removed from the sewage, and there would be more danger of nuisance from smell during the sludging of the tanks and the sludge disposal operations.

85. As regards very strong domestic sewages consisting for the most part of slop-water there is, apart from the question of cost, little to choose between the various methods of settlement. The bulk of the suspended matter in such a sewage settles fairly rapidly, leaving a soapy liquid containing a considerable quantity of greasy suspended matter. Such sewages are, however, usually to be found at small places where labour for frequent sludging would not be available, and in these circumstances septic tanks would usually be more economical than sedimentation or chemical precipitation tanks, and they would produce a tank liquor which would be suitable for filtration through coarse filters.

* The success which has attended the treatment of the Dorking septic tank liquor with a small quantity of lime makes it appear possible that in some cases the combination of the two processes—*i.e.*, septic tank treatment followed by lime precipitation—would be preferable to precipitation alone (*c.f.* paragraph 56 and note on p. 43).

We have had opportunities for observing the treatment of sewages of this kind by various methods of settlement, including septic tanks (Hemsworth), settling tanks used on the continuous flow plan (Clifton, Lancashire), and chemical precipitation followed by quiescent settlement (Withnell). The two examples of chemical precipitation followed by continuous flow settlement which we have had under observation—Calverley and Normanton (Yorkshire)—did not give very good results as regards settlement, the suspended matter in the tank liquor being above 12 parts per 100,000 in both cases. The reasons for this were that the sewage varied greatly in strength throughout the day, and the proper addition of the precipitant was a matter of much difficulty ; and, as is common at some places, the tanks were allowed to run too long without cleaning.

Domestic Sewages of about Average Strength.

86. For domestic sewages of about average strength, whether of the slop-water or water-closet type, the choice of the preliminary process should depend upon local circumstances and upon the kind of filters to be adopted. With such sewages equally good final results may be obtained either from septic, sedimentation, or chemical precipitation tanks, followed by artificial filters, though the size of the material to be used in the filter should depend, to some extent, on which tank treatment was adopted. The least amount of sludge is produced by the septic tank and the greatest amount by the chemical precipitation tank, but a larger area of filter is required for the treatment of the septic tank liquor than for the treatment of the precipitation tank liquor. Approximately the same filter area is required for the filtration of sewage from sedimentation tanks used with a continuous flow as for septic tank liquor. If quiescent sedimentation is adopted, a smaller area of filter will suffice. Excepting at very small places, where the labour costs for the constant sludging of the tanks would be disproportionately high, or in cases where pumping would be required, quiescent sedimentation gives considerably better results as regards suspended matter than continuous flow sedimentation, at practically the same cost.

Weak Domestic Sewage.

87. The last 4 or 5 parts of suspended matter are extremely difficult to throw down as sludge, and in the case of weak sewages the difference between the various tank treatments, as regards suspended matter in the resulting liquors, is not nearly so great as it is in the case of strong sewage.

For this reason, the advantage as regards amount of sludge produced and saving in cost of chemicals which the preliminary processes of septic tank treatment and continuous flow sedimentation have over chemical precipitation, is of greater importance with weak than with strong sewages. The septic tank process would, we think, generally be most economical for a weak sewage, if land were available for the burial of the sludge. The sludge produced would not have a very offensive smell, and might indeed in some cases be comparatively free from smell. If, however, no land were available for the burial of the sludge, the extra cost of pressing septic tank sludge would materially diminish the advantage of septic tank treatment.

Summary for Domestic Sewage.

88. Speaking generally, we should say that chemical precipitation is more suitable for strong sewages or sewages likely to give rise to nuisance, while septic tank treatment or sedimentation would usually hold the advantage in the case of weak sewage. For sewage of about average strength there is probably little difference between the three processes, and the selection of the process would depend chiefly upon the facilities for sludge disposal, the position of the works as regards houses, and the kind of filters to be adopted.

It must be remembered, however, that there are other considerations which may affect the question. A particular sewage, for example, may be liable to great variations in strength and character, and the equalising effect which the septic tank has on such a sewage is a point of considerable importance.

Moreover, it is by no means to be thought that finality has been reached in the preliminary treatment of sewage. New combinations of tanks or of processes may lead to much improvement; a cheap deodorant for sludge may be found, etc. In this connection, we may refer to the results of our experiments at Dorking upon the treatment of sewage by septic tanks, followed by precipitation with lime, which are mentioned on p. 29.

Sewage from large Cities.

89. The presence of trade waste in large or preponderating quantity has an important bearing upon the preliminary treatment of the sewage from a large city. Where the sewage contained much brewery waste, lime would probably have to be added for the purpose of neutralisation, as at Burton-on-Trent; where it was strongly alkaline, or very greasy, acid might have to be used as the precipitant, as at Bradford; where it contained much tarry matter or matter which had an inhibitory effect upon the activity of purifying organisms, septic tanks might be preferable, by reason of the longer stay which they give to the sewage. Manchester may be cited as an example of this last case. For these reasons it is impossible to make any but the broadest generalisations with regard to the preliminary treatment of the sewage from large cities, whether it be weak or strong.

Where very large areas of filters have to be put down, it is of considerable importance to protect them against clogging, and we think that it will usually be found best in the case of a large city to adopt effective means for the removal of most of the suspended matter before filtration. In the majority of cases this would involve the adoption of chemical precipitation, though not necessarily in all, for Mr. Watson, of Birmingham, has shown that a well clarified tank liquor can be obtained by interposing Dortmund tanks between the septic tanks and the filters. The Birmingham septic liquor contains on the average about 20 parts of suspended matter before entering the Dortmund tanks, but only about 6 parts when it leaves them. This liquor from the Dortmund tanks has now been treated for some years on percolating filters without serious clogging. It must be pointed out as regards Birmingham, however, that at that place there is a very large area of land available for the disposal of sludge. If it were not for this, sludge pressing might have been necessary, and having regard to the difficulty of pressing septic tank sludge, it might have been desirable to adopt chemical precipitation.

PART II.—PURIFICATION OF SEWAGE BY ARTIFICIAL FILTERS.

INTRODUCTORY REMARKS.

90. Sewage filters may be divided into two broad classes:—contact beds and percolating filters.

Contact beds are tanks filled with some filtering medium. In this type of filter, the sewage is held up before it is discharged. The bed, after it is emptied, is allowed to remain empty for some time before receiving the next filling. The length of time during which the sewage is allowed to stand in the bed is spoken of as the period of contact.

In percolating filters the sewage is not held up, but is allowed to percolate through the filter.

There can be no doubt that the organic matter in solution in sewage can be oxidised by either type of filter, provided the filter is properly constructed and properly worked, but the question of the relative merits of the two types is one of some difficulty, as very few strictly comparative experiments on a large scale have been made.

SOME OBSERVATIONS AS TO THE EXTENT TO WHICH THE SUSPENDED SOLIDS SHOULD BE REMOVED FROM SEWAGE BEFORE IT IS FILTERED.

91. No rule can be laid down as to the extent to which the suspended solids should be removed from sewage before it is filtered, but, speaking generally, if it is proposed to use filters of fine material, we think it will be found most economical to adopt some form of tank treatment which will yield a tank liquor fairly free from suspended solids; whereas, if coarse filtering material is to be used, this is not so essential.

If much suspended matter is put on fine filters, they are likely to choke very rapidly unless the rate of filtration is very slow.

Under the heading "Some observations on the choice of a method of sewage treatment," page 202, a number of points are mentioned which should be taken into account in determining what method of treatment should be adopted in any particular place, and in this section we only propose to give the results of our general experience as to the amounts of suspended matter, which, having due regard to the life of the filter and to the quality of effluent, may be allowed with certain kinds of filters, worked at certain rates.

The figures relate to domestic sewage, or sewage containing only small amounts of trade refuse, of average strength.

The rates of filtration which we give could generally be doubled in wet weather. Thus, assuming it was desired to provide enough filtering material to filter in storm times up to three times the dry weather flow of sewage, the amount of material required would be 50 per cent. more than the amount which would be required for the dry weather flow, calculated on our figures.

I.—Contact Beds.

Coarse Material (3 ins. diameter and upwards).

92. Grit-settled sewage containing 20 to 30 parts of suspended matter could be treated at the rate of 1 to 1½ fillings per day (about 30 to 40 gallons per cube yard * per day for double contact) upon material of this size in contact beds; if the sewage contained 30 to 50 parts of suspended matter per 100,000, the rate of treatment should not exceed 1 filling per day (about 30 gallons per cube yard per day for double contact). In both cases provision would have to be made for thoroughly washing the material in the beds about once every 18 months or 2 years. Secondary beds of medium-sized material, used subsequently, would probably have to be washed every 4 or 6 years.

Medium-sized Material (½ in. to 1 in. diameter).

93. Tank liquors containing 10 to 15 parts of suspended matter per 100,000 could be treated upon material of this size at the rate of about 2 fillings per day (50 gallons per cube yard * of filtering material per day for double contact, or 100 gallons per cube yard for single contact), but the material would have to be thoroughly washed or renewed every 3 to 5 years. If the tank liquor contained from 4 to 7 parts of suspended matter per 100,000, the rate of treatment might be 3 (about 80 gallons per cube yard * per day for double contact, or 160 gallons per cube yard for single contact) or, at times, 4 fillings per day, and the beds would probably have to be washed every 4 or 5 years. In both these cases the material in the secondary beds would probably not require to be washed for 7 or 8 years.

* See footnote on next page.

If the liquor contained from 1 to 4 parts of suspended matter per 100,000 it could probably be treated at a rate of 4 to 6† fillings per 24 hours (about 100 to 160 gallons per cube yard * per day, for double contact), and the material might not need washing for 6 to 8 years, or possibly even longer. Secondary beds, in this case, would probably last for 12 or 15 years.

Fine Material (¼ *in. diameter*).

94. It would be inadvisable, we think, to attempt to treat tank liquors containing more than 4 or 5 parts of suspended matter per 100,000, on material of this size. A good tank liquor, containing from 1 to 4 parts of suspended matter could, probably, be well filtered at the rate of from 4 to 6* fillings per day (about 100 to 160 gallons per cube yard † per day for double contact or 200 to 320 gallons per cube yard for single contact), and the material would, probably, not have to be washed for 6 or 8 years. The upper part of the material in secondary beds would, probably, have to be washed every 12 or 15 years.

II.—Percolating Filters.

Coarse Material (3 *in. diameter and upwards*).

95. Grit-settled and screened sewage could be treated on a percolating filter composed of material of this size even if it contained as much as 30 parts of suspended matter per 100,000, provided such suspended matter was not largely made up of fibrous material, hops, etc. If the sewage was of average strength, it could, probably, be filtered at a rate of about 50 gallons per cube yard per day. The upper part of the material would, we think, have to be removed and replaced about every 2 years, and the lower part flushed through with water or clarified sewage.

Tank liquors containing, say, 10 to 20 parts of suspended matter per 100,000, might be treated upon this material for long periods of time (say, 10 to 15 years) with occasional renewal of the top foot of material. If the tank liquor was of about average strength, it could be filtered at a rate of about 100 gallons per cube yard per day.

A tank liquor of about average strength, containing from 4 to 7 parts of suspended matter per 100,000, could similarly be treated on coarse material, but in this case the rate of filtration might be about 100 to 150 gallons per cube yard per day.

A tank liquor, containing from 1 to 4 parts of suspended matter per 100,000, could be filtered for even longer periods of time on coarse material, and, if it were of about average strength, at a rate of 150 or possibly 200 gallons per cube yard per day.

In all these cases the filtration might occasionally be affected by fungoid growths on the surfaces of the filters. Provision would generally have to be made in the first three cases, and possibly in the last also, for the settlement or the straining, through fine material, of the filter effluent, in order to reduce the suspended matter contained in it.

Medium-sized Material (½ *in. to* 1 *in. diameter*).

96. Grit-settled and thoroughly screened sewage could generally be treated upon material of this size, even though it contained as much as 30 parts of suspended matter per 100,000. The rate of filtration, however, should not exceed 25 gallons per cube yard per day, and even in that case the upper part of the material would probably require to be washed every 2 or 3 years. The plan would, we think, not be economical, except at very small places.

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* There are good grounds for putting the average water capacity of a primary contact bed during its working life at about 33 per cent. of its original empty tank capacity. These estimates are consequently based upon that assumption. We estimate that the average capacity of a secondary bed during the filtrate of its complementary primary bed, is about 40 per cent. of its original empty tank capacity. If this is taken into account, i.e., if the secondary beds are made proportionately smaller than the primary beds, the rates of filtration per cube yard per day will be rather greater in each of the cases given above.

† With large beds such a high rate of working would, probably, be only practicable for short periods of time.

Tank liquors containing from 10 to 15 parts of suspended matter per 100,000 could generally be treated on this material at a rate of about 50 gallons per cube yard per day, if the upper part of the material were washed or renewed once in 3 or 4 years, and provided also that the bed were well rested immediately any signs of ponding occurred.

A tank liquor containing from 4 to 7 parts of suspended matter per 100,000 could generally be filtered at a rate of 75 to 100 gallons per cube yard per day. The upper part of the material would probably require washing or renewal once in 3 to 5 years.

A very good tank liquor containing from 1 to 4 parts of suspended matter could generally be filtered at a rate of 150 to 200 gallons per cube yard per day, provided the filter were carefully rested when necessary, and also that the liquor was not of a kind liable to give rise to fungoid growths. The material in this case would probably last without washing for 5 or 6 years, or possibly even longer, though it might be advisable to wash or renew the uppermost few inches every 1 or 2 years.

In the first three mentioned cases, and possibly in the last also, provision would usually have to be made for the reduction of the suspended matter in the filter effluent.

Fine Material ($\frac{1}{4}$ *in. diameter*).

97. It would be inadvisable, we think, to attempt to filter tank liquors containing more than 6 or 7 parts of suspended matter per 100,000 on material as fine as this. Crude sewage, for instance, would clog the surface of such material in a very short time, unless the rate of filtration were exceedingly slow, and even then the surface of the material would have to be constantly scraped and cleaned.

Tank liquors containing from 4 to 7 parts of suspended matter per 100,000 could generally be filtered at a rate of 75 to 100 gallons per cube yard per day. The upper part of the material would require washing or renewal about once in 4 or 5 years.

A tank liquor containing from 1 to 4 parts of suspended matter per 100,000 could probably be filtered at a rate of 150 to 200 gallons per cube yard per day, and the material in the upper part of the filter would probably require washing once in 4 or 5 years. The higher rate could only be maintained, if the filters were shallow.

Very fine Material ($\frac{1}{8}$ *in. diameter and smaller*).

98. Where material, such as sand, is used for a filter, or where the filter is protected with a surface layer of sand, only very well clarified tank liquors can be treated, unless the rate of filtration is very slow and the surfaces of the beds are scraped or washed at short intervals. Such filters must necessarily be used intermittently.

For tank liquors containing from 4 to 7 parts of suspended matter per 100,000, the rate of filtration should probably not exceed 50 gallons per cube yard per day, and the surfaces of the filters would have to be scraped after every one or two applications of the liquor. If the fine material alone were relied upon for the distribution of the liquid, the rate of filtration might possibly have to be slower. If very fine-grained filters were arranged in the shallow form and were washed by upward flow every one or two weeks, it would be possible to treat a very good tank liquor from a sewage of about average strength, containing, say, 1 to 4 parts of suspended matter per 100,000, at rates of from 200 to 300 gallons per cube yard per 24 hours. The liquor would have to be delivered intermittently, and the distribution must of course be efficient. At Chorley, where such a tank liquor is delivered on to filters of this kind, the rate of filtration is upwards of 350 gallons per cube yard per day. Here, the tank liquor is delivered in large flushes which cover the whole surface of each bed to a depth of 2 or 3 inches, and the surface of the beds is frequently washed.

CONTACT BEDS.

99. Our knowledge of the action of a contact bed is very incomplete, and little is known as to the manner in which the organic substances of sewage are broken down during the first stages of fermentation into carbon dioxide, ammonia, etc. The purifying agents seem to be not only bacteria, but also worms, larvæ, insects, etc., and we can offer no opinion as to the respective amount of work done by each set of agents. It probably differs to some extent according to the nature of the sewage. It has been observed that at some places large numbers of worms are present, while at others there are comparatively few. Little is known of the kind of bacteria essential for purification, or as to their mode of action, and we are not able to state whether they act chiefly during the period of contact or during the period of rest, or aeration, after the filter is emptied. There are, however, grounds for thinking that the resting period is the more important phase of the cycle.

The generally accepted theory as regards nitrogenous matter seems to be that the ammonia is extracted from the liquid during the period of contact, and oxidized during the period of rest, and that the resulting nitrate and nitrite are diffused through the liquid of a subsequent filling. All the ammoniacal nitrogen, however, does not appear in the effluent in the oxidized state, for there is always loss of nitrogen, as nitrogen gas, during the process.

The withdrawal of suspended and colloidal matter from the sewage during its passage through the bed appears not to be a simple mechanical effect of the material, for a matured contact bed, not clogged, will withdraw more suspended matter from the sewage than another bed similar in all other respects, but not matured. As regards the action which takes place in a contact bed, we may also refer to the evidence of Mr. Dibdin, Dr. Rideal, Mr. Harrison, Mr. Valentine and Dr. Fowler.

Dibdin, 2176, 3902–5.
Rideal, 4133, 4207–8.
Harrison, 22021.
Valentine, 22475
Fowler, 22815.

Construction of Contact Beds.

100. In some cases contact beds have been made by simple excavation, but our experience and the evidence which we have received show that in the majority of cases it is desirable that the beds should be constructed of building materials.

When contact beds are constructed by simple excavation in clay soil, there is risk of the clay sooner or later, according to the character of the stratum, working up into the filtering material. Moreover, the lines of underdrains are apt to become distorted, as the result of unequal settlement.

Wilkinson, 24282.
Wike, 23588.

At Heywood an experimental bed was constructed, without concrete, in clay soil, and it was found that the clay worked up into the bed and formed an impervious mass round the drain pipes.

Again, there is danger of leakage unless the soil is of a very dense nature and the embankments are of considerable width. This leakage may occur as a result of unequal settlement, or through rats or moles burrowing into the embankment, or through the cracking of the clay during periods of rest or frost. The result of leakage may be detrimental to the working of the bed. Two instances which have come under our own observation may be mentioned.

At Halton it was found necessary to fill two of the primary contact beds simultaneously, as the liquid percolated from one bed to the other through the intermediate embankment.

At Oswestry, where double contact beds were constructed in fairly stiff clay soil, some of the retaining banks became sodden with liquid after three or four years' work and sank considerably in consequence.

Even in the most impervious kind of soil the outlet chambers of contact beds must be constructed of building materials, and, unless this work is most carefully carried out, there is danger of leakage at the juncture of the chamber and the embankment. It may also be remarked that the embankments required, where no building materials are used, take up more space than properly built walls.

On the other hand, where the site for the works consists of a dense clay, experience shows that the construction of contact beds by simple excavation may be satisfactory.

As examples, we may refer to the beds at Burnley and Oldham.

At Burnley twenty-four acres of double contact beds have been constructed by simple excavation in loam and heavy clay soil. The oldest of the Burnley beds was brought into use about ten years ago.

At Oldham, where the soil is chiefly clay, with pockets of sand in places, five acres of single contact beds have been constructed by simple excavation, the sides being puddled where necessary and boarded up with 3-inch planking.

In both these cases the construction has been fairly satisfactory.

101. The construction of the bottom of a contact bed should be such as to allow of the treated liquid being drawn off quickly, but quietly, in order to give the material the longest possible rest and aeration.

The liquid which, at the commencement of the filling, finds its way into the drains of a contact bed is not purified to the same degree as the bulk of the liquid throughout the filtering material, and, for this reason, the drains of a contact bed should not be larger than is necessary to allow of the thorough draining of the bed.*

It has been suggested that this difficulty of unequal purification might, to some extent, be overcome by constructing the drains so that they would remain full of filter effluent after the bed had been run off. We are not aware that this course has been actually tried, but if it were adopted, great care would have to be taken to construct the drains below the level of the material, and to place the outlet valve in such a position as to preclude the possibility of effluent standing amongst the lower layers of the material during the resting period. Whether the aeration of the bed, during the "rest," would be affected we are unable to say. In any case it would be inadvisable to attempt this plan of draining where the bottom was not constructed of concrete or some such material.

In order that the withdrawal of the liquid may be gentle, as well as rapid, it is desirable to provide several drains, especially in a large bed.

102. Two points of detail may be mentioned here which are of some importance :—

The outlet valve of a contact bed should be fixed in such a position that a proper sample of the filter effluent can be collected from it. In a number of cases we have found it very difficult to draw proper samples of effluent from contact beds, owing to the outlet valves being placed low down in the channel along which effluents from other beds were flowing, and in these cases it has not been easy to ascertain the efficiency of the individual beds.

The feed channels to the secondary beds should be constructed so as to provide reasonable facilities for measuring the capacity of the beds. These beds are frequently so constructed that accurate measurements of capacity cannot be made.

Depth of Contact Beds.

103. The evidence shows that, within ordinary limits, the depth of a contact bed makes, practically, no difference to its efficiency per cube yard.

At Leeds, experiments were made with three contact beds of different depths, filled with similar material, and treating the same tank liquor. These beds were, respectively, 5 feet deep, 4 feet deep, and 3 feet 6 inches deep.

The bed 5 feet in depth received septic tank liquor at the rate of two fillings per day, with one week's rest in every four. During the period from July, 1901, to March, 1905, the effluent showed, according to Mr. Harrison's analyses, an average reduction of 78·6 per cent. in oxygen absorbed from permanganate in four hours.

* Note.—The actual size of the drains would depend to some extent upon the size of the material.

The bed 4 feet deep received septic tank liquor at the rate of one filling per 24 hours, from August 17th, 1901, to January 11th, 1905. The effluent showed an average reduction in oxygen absorbed from permanganate in four hours of 80·3 per cent.

The bed 3 feet 6 inches deep received septic tank liquor for fourteen months, at a rate of three fillings per day, and gave an average reduction in oxygen absorbed from permanganate in four hours of 74 per cent.

Taking into account the differences in working, there was no great difference in the results obtained in this experiment, and so far as we could judge from a careful comparison of the results at the time the experiments were made, none which could be ascribed to the depth of the filters.

The experience of Dr. Clowes in connection with some experiments which he carried out at the London sewage works was in agreement with that of the Leeds experiments.

For further details on this question reference may be made to the evidence of Mr. Harrison, 22005; Mr. Valentine, 22450; Dr. Fowler, 22792; Mr. Wyke, 23599; Mr. Wilkinson, 24283; Mr. Campbell, 21652 and 21883; and Dr. J. B. Wilkinson, 22643.

104. From our own experience of contact beds, we think that it would be generally inadvisable to construct them of a greater depth than 6 feet or of a less depth than 2 feet 6 inches.

In order that a contact bed may drain properly, it is necessary to have a few inches of large material on the floor of the bed, and this material, with the drains themselves, would occupy about 6 inches of depth. The sewage which remains among this coarse material, or in the drain spaces, during the time when the bed is full, is not so well purified as the liquor which is standing amongst the finer material in the upper part of the bed, and it is found that the first flush from a contact bed, which comes from the lowest part of the bed, is usually considerably worse than the main bulk of the effluent. As a general rule, we doubt whether it would be wise to allow this less efficient portion of the bed to form more than one-fifth of the whole depth, and for this reason we suggest that the minimum depth should usually be not less than 2 feet 6 inches.

As regards the maximum depth of contact beds we may observe :—

(*a*) That an increase in depth puts a greater weight upon the filtering material in the lower part of the bed, and may cause disintegration.

(*b*) That the difficulty of digging and handling the material, when washing is necessary, is greater with deep than with shallow beds, and that the operation would require a greater amount of labour and would result in more breaking down of the material during the process.

105. Our experience of contact beds ranges from the deepest of the Leeds beds, 6 feet deep, to the shallow contact beds at Oldham, 1 foot 6 inches deep, the depths of the contact beds at the various places which we have had under observation being :—

Leeds	From 6 feet to 3 feet.
Exeter (St. Leonards)	5 feet.
Hendon	5 feet (about).
Slaithwaite	5 feet.
Withnell	5 feet and 3 feet 6 inches.
Oswestry	4 feet 6 inches.
Exeter (Main works)	4 feet 6 inches.
Maidstone	4 feet 4 inches and 3 feet 3 inches.
Halton	4 feet 3 inches and 3 feet 3 inches.
Hartley Wintney	4 feet.
Andover	4 feet.

Hampton	4 feet.
Newton-le-Willows	3 feet 6 inches.
Calverley	3 feet.
Guildford	2 feet 6 inches.
Oldham	1 foot 6 inches.

Filling and Emptying of Contact Beds.

106. The evidence shows that two hours' contact and four hours' rest have generally been found to give the best results in practical working, where the beds are filled three times a day, but no rule can be laid down which is of universal application.

As regards this question Dr. Fowler stated in reference to his Manchester experience that the periods depend almost "entirely on the age of the bed and the dilution of the
Fowler, 22798 "sewage. In the initial stages of working, long contacts (*e.g.*, twenty-four hours) have been "found advantageous, their effect being to facilitate the formation of a slimy layer of col- "loidal matter on the medium, in which the real biological action begins. As this layer "increases, the 'absorptive' effect increases also, and less time of contact is required. More- "over, a greater quantity of water is held up in a bed, and the quantity of 'draining' in- "creases, till with a bed in long use a very short contact, say, a quarter of an hour, is all "that is required. With increase in dilution of the tank effluent, due, *e.g.*, to storm water, "the period of contact may be reduced to a minimum. In general, after the bed is once "'mature,' the period of rest is more important than the period of contact, and the total "time occupied in twenty-four hours in filling, standing full, and emptying should not "exceed the total of the period of rest. Thus, with frequent fillings, the time of contact "should be shortened. If the bed takes long to fill, the extra time in filling should be taken "from the time of contact. The above also applies to secondary beds, it being understood "that, as they deal with an effluent containing less impurity, they can be worked more "rapidly than primary beds."

At Calverley the period occupied by filling and standing full varied from six to twenty-four hours, the beds being filled, on an average, less than once a day. A good percentage purification on a strong precipitation liquor was obtained by single contact, but the liquor was too strong to allow of single contact producing a satisfactory effluent. The beds retained their capacity well. A long contact apparently helps to break down the suspended solids and to allow of their passing out of the beds in very considerable quantity.

107. Unless the circumstances are exceptional, we think that, in designing a contact bed scheme, a contact of two hours' duration should be provided for, leaving subsequent experience to show whether this could not be shortened to some extent. The period of contact should be fairly regular, as sudden variations may, we think, have a disturbing effect upon the agents of purification. We have noticed, for instance, in beds generally giving two hours' contact, that if the sewage is occasionally held up for a much longer time, say, five or six hours, great numbers of worms are driven to the surface.

It is also desirable that the fillings should be as far apart from one another as practicable, (*e.g.*, to give three fillings in three cycles of eight hours each, rather than three fillings in twelve hours followed by a twelve hours' rest), so that the maximum period for drainage and aeration between the fillings may be obtained.

108. The operations of filling and emptying should be carried out as rapidly as possible, but care must be taken to avoid disturbance of the filtering material, as this may cause disintegration.

Harding, 7051. *et seq.* Ross and Pickles, 2077. Harrison, Fowler, 22799. Wike, 23565. Wilkinson, 24920.

Further, the evidence shows that the liquid should be passed on to the filter fairly evenly over its whole surface, so that the suspended solids may, as far as practicable, be spread over the whole surface and prevented from entering the bed.

109. With a view to avoiding nuisance, the feed channels have, in some few cases, been placed slightly below the surface of the material, and no doubt the smell from the beds has been thereby lessened. But beds fed in this way would, we think, require more frequent attention to prevent clogging.

In one or two cases upward filling of contact beds has been suggested for a similar reason. This method of filling would, no doubt, lessen the risk of nuisance, but the difficulty of maintaining the capacity of beds worked in this way would be serious.

Automatic Gear.

110. We have had many opportunities of studying the use of automatic apparatus for filling and emptying contact beds, and we have received evidence from several witnesses who have had considerable experience of these devices.

Our own observations and the experience of others show that it is not possible to rely entirely on automatic apparatus for sewage works, although within certain limits it may be advantageously used with considerable saving of labour.

In the case of large sewage disposal works, where men are always available, we consider that it would usually be inexpedient to provide automatic plant. It is liable to get out of order, it does not adapt itself to variations in volume and strength of sewage, state of beds, etc., and generally it is preferable to work the beds by manual labour, where such labour is at hand.

At Manchester, automatic gear was given a careful trial, with a view to its ultimate adoption, if successful. It had, however, to be abandoned, and in reference to this Dr. G. J. Fowler stated :—

> "I have had considerable experience of these devices, both on the experi- Fowler, 22800.
> "mental and working scale at the Davyhulme works, and also at the Withington
> "works. My experience leads me to think that in large works, where skilled
> "supervision must be provided in any case, there is no advantage in their use.
>
> "In small works I think some simple mechanism is useful, chiefly on
> "economic grounds, but it should not be left without some attention, if pos-
> "sible, at least once a day. In small works, with the filtering area divided into
> "few units, great fluctuations may occur in the cycle unless some arrangement
> "of dosing tank is provided, or storage in the main tank (septic or other). These
> "fluctuations may be harmful by causing the time of filling to be too prolonged,
> "with consequent curtailment of the resting period. The chief difficulty, how-
> "ever, is the constant variation in the water-holding capacity of the beds and
> "in the permeability of the surface, causing pondage and irregular working."

We may also refer to the evidence of Messrs. Raymond Ross and Pickles in regard to Ross and Pickles, 20778.
to the Burnley works. They stated :—

> "We have not used any automatic apparatus for filling or discharging.
> "The reasons which have led to the exclusion of automatic apparatus are as
> "follows :—
>
> (1) "They are very liable to get out of order, and consequently it is necessary
> "to have a man always on the watch to see that they are working properly.
> "As the attendance of one man is all that is required at our works
> "to control the valves, no saving of wages would be effected, but there
> "would be considerable increase in capital outlay, as all the appliances
> "are expensive to instal, and, we think, costly to maintain.
>
> (2) "Automatic apparatus takes no notice of the condition of the bed, which,
> "in our opinion, is a matter of considerable importance.
>
> (3) "Where the flow of sewage varies, it is desirable to be able to bring the
> "larger beds into use during the time of the greatest flow, so that their
> "period of filling may approximately equal that of the smaller beds. This,
> "we consider, is best accomplished by hand control."

Similar evidence was given by other witnesses.

In the case of small sewage works, however, where labour would not always be available, automatic gear for filling and emptying the beds would often effect considerable saving. Where automatic gear is provided, proper arrangements should be made for the treatment of storm water or sewage overflow arising from a breakdown in the gear. In no case can personal attention be dispensed with entirely.

Loss of Capacity of Contact Beds.

111. The loss of capacity of contact beds is undoubtedly a serious drawback to their efficiency. The evidence shows that the loss chiefly depends upon the following factors:—

(1) Disintegration of the filtering material.
(2) Consolidation of the filtering material.
(3) Deposition of colloidal matter.
(4) Growth of organisms.
(5) The volume of liquid passed on to the bed.
(6) Insufficient rest.
(7) Inefficient drainage.
(8) The amount of suspended matter in the liquid passed on to the bed.

(1) *Disintegration of the Filtering Material.*

112. In the experiments made by Colonel T. W. Harding and Mr. W. H. Harrison at Leeds, the material in nearly all the contact beds was found to have disintegrated considerably.

One of the first of these experiments related to the treatment of crude sewage on contact beds, filled with particles of coke over 3 inches in diameter. This experiment lasted from October 2nd, 1897, to September 8th, 1898, and the coke, in both the primary and secondary beds, suffered considerable disintegration. When the experiment was completed, the material in the primary beds was taken out and only that coke replaced which could not pass through a $1\frac{1}{2}$ inch mesh. Colonel Harding and Mr. Harrison computed the volume of coke rejected in this way at 45·25 per cent. They concluded that if a material could have been used which was not liable to degradation, probably one-third of the loss of capacity would have been avoided.

In the clinker beds, crude sewage, chemically precipitated sewage, and septic tank liquor were treated, and in the case of these beds, also, considerable disintegration took place.

At Hartley Wintney, where soft furnace clinker was used, we observed that the material had disintegrated considerably after five years' work, and we came to the conclusion that this was one of the chief causes of loss of capacity of contact beds at that place.

At Burnley, where a large area of contact beds has been in use for some years, it has been found that the disintegration of the material has caused a considerable loss of capacity. The experience of Burnley, however, has shown that much of the material which has broken down in primary beds may be used with advantage in secondary beds, and that beds which are filled with old material, after it has been washed and re-screened, do not lose capacity so rapidly as beds constructed of new material.

The experience of Manchester in regard to the disintegration of material is also of value. The following data have been given to us as representing a typical case:—

Contact bed No. 10 was first brought into use on May 2nd, 1902, the bulk of the material of which it was composed consisting of dry screened boiler clinker and cinders rejected by a $\frac{3}{16}$ inch mesh. There was also large clinker over the line of drains. After having received 2,578 fillings the bed was stopped, and the whole of the material was washed against a $\frac{1}{4}$ inch mesh sieve. As a result of this screening, 24·1 per cent. of the material was found to be too small to go back into the bed. About two-thirds of this was $\frac{1}{8}$ to $\frac{1}{4}$ inch in size, and was available for the surface of the secondary beds. The actual loss of material, after allowing for the re-use of the material on secondary beds, was estimated by Dr. Fowler at about 8 per cent. to 10 per cent. of the original material.

At Newton-le-Willows, the material (furnace clinker) in all the contact beds at the central works was taken out and re-screened after six years' use. In June, 1900, when the beds were first brought into operation, the material consisted of particles from $\frac{1}{2}$ inch to 2 inches diameter. As a result of the re-screening, which took place between March and September, 1906, Mr. Arthur Bowes, the Surveyor to the Newton-in-Makerfield Urban District Council, estimated that about 25 per cent. was too small to be used again.

At Andover, a bed which was under observation by Mr. R. W. Knapp, was first brought into use on August 13th, 1901, the bulk of the material (hard furnace clinker) being, at that time, from $\frac{1}{8}$ inch to $\frac{1}{2}$ inch diameter. In August, 1905, the bed was stopped and the material taken out and riddled, with the result that only 75 per cent. was found to be still $\frac{1}{8}$ inch to $\frac{1}{2}$ inch in diameter. The remainder had become too small to go back into the bed.

At Oswestry, where ordinary house cinders were used in the primary beds, considerable disintegration took place after about six years' working.

These, and other experiments, leave no room for doubt that a considerable proportion of the loss of capacity of contact beds is due to the disintegration of the material of which the bed is formed.

(2) *Consolidation of the Filtering Material.*

113. Consolidation of the material usually accompanies its disintegration, the small broken pieces becoming washed into the interspaces of the bed. The same thing takes place where the separate fragments of material in a bed are of unequal size.

In the Leeds experiments it was found that contact bed No. 8, treating septic tank liquor, had its capacity reduced within six months from 29,500 gallons to 10,700 gallons, and this notwithstanding that the material below the upper 2 inches was still comparatively clean.

The bed was rested for six weeks, and the material turned over, with the result that on restarting the capacity was found to be 26,900 gallons. The material in this bed was furnace clinker of $\frac{1}{8}$ inch to $\frac{3}{8}$ inch diameter.

Much the same result was noticed during the filtration of lime-precipitated liquor at Leeds in a contact bed. The original water capacity of this bed, on March 24th, 1899, was 55,700 gallons ; on October 20th, 1899, after rather over seven months' working at three fillings per 24 hours, it had fallen to 21,600 gallons. Here again the material (clinker of $\frac{3}{8}$ inch to 1 inch diameter) below the upper few inches was found to be fairly clean, though much consolidated.

It was concluded that the loss of capacity in both cases was due very largely to consolidation of fine material of uneven size, and our own observations of these beds bear this out.

In another case—Hampton—where very much finer material was used, the same thing was observed. Tertiary bed No. 2, composed of boiler furnace clinker under $\frac{1}{4}$ inch diameter, including dust, after being in use for five years, became so consolidated that much difficulty was experienced in getting the secondary bed effluent into it. The bed was then simply turned over, and a considerable increase of capacity resulted. From the appearance of the material before it was turned over (which although clean, was closely bound together), it was evident that the greater part of the loss of capacity was due to the consolidation of the material rather than to clogging from suspended matter.

Beds of very fine material, as in this case, are undoubtedly more liable to consolidation than beds of medium sized or large material. In some beds of the same kind at Devizes, we observed that the fine material (which also included dust), although fairly clean, was so closely bound together that the liquid of one filling had not time to run away before the next filling was due, with the result that putrefaction set up in the body of the bed.

(3) *Deposition of Colloidal Matter.*

114. The extent to which colloidal matter affects the capacity of filter beds has not been fully investigated, but we are satisfied that in some cases it is serious. Dr. Fowler was, we believe, one of the first to investigate the matter in this country, and it has recently been the subject of investigation by Dr. Owen Travis at Hampton, and Messrs. O'Shaughnessy and Kinnersley at Birmingham.

(4) *Growth of Organisms.*

115. If a piece of clean filtering material is taken out of the interior of a matured contact bed and scraped, its surface will be found to be covered with a jelly-like material, which, under the microscope, is seen to contain enormous numbers of bacteria. This material possesses the power of absorbing oxygen rapidly and liberating carbon dioxide. It is probable that it is the living matter bound up in this jelly which gives the bed power to break down and oxidise the organic matter of impure liquids, but little is known about its precise nature and manner of action.

Several witnesses have expressed the view that the growth of organisms is one of the causes of loss of capacity in a contact bed.

In regard to this point Dr. Fowler stated :—

Fowler, 22803.

"This (growth of organisms) is at once the cause of increased efficiency in "the bed, and of loss of capacity. On examining the material of a contact bed "in active condition, every piece is seen to be coated over with a slimy growth. "If this is removed it soon dries to a stiff jelly, which can be cut with a knife. "Under the microscope masses of bacteria and zoogloea will be found to be "present. If placed in a tube containing air, and connected with a manometer, "the jelly will rapidly absorb all the oxygen and produce carbon dioxide.

"This action will sometimes produce a vacuum of several inches of mercury. "There is little need, therefore, to force air into a bed, as the natural interchange "of gases which takes place is sufficient for adequate aeration. As a matter "of fact, there is always a large amount of oxygen to be found at the bottom of "a bed in good condition. The behaviour of the bacterial jelly appears to afford "the clue to the successful working of bacteria beds. By working them at a high "speed—*i.e.*, filling them frequently in the day, without long periods of rest— "the effluent may remain good, but the bacterial growth so rapidly increases "that the bed becomes too spongy, and will not allow the water to drain away. "Here, too, is the explanation of the fact that, within certain limits, decrease of "capacity is accompanied by increase of efficiency.

"This decrease of capacity may, however, become so great as to outweigh "the advantage of increased efficiency. A long period, say one or two weeks' "rest, must then be given to the bed.

"These rests should not exceed a fortnight at most, as the bed then tends to "dry up, and the activity of the organisms diminishes.

"It is therefore important that the decrease of capacity should not be "allowed to become excessive before resting, or it may not be possible to com- "pletely recover the loss during the time of rest."

(5) *The Volume of Liquid passed on to the Bed.* (6) *Insufficient rest.* (7) *Inefficient drainage.*

116. It is evident that, for physical reasons alone, the working capacity of a contact bed must be influenced to some extent by the actual volume of liquid treated. If, for instance, two exactly similar contact beds, filled with unmatured material of the same size, are fed with pure water, one being given eight fillings and the other two fillings per day, the former, although not losing capacity in the absolute sense, will take rather less water at each filling than the latter, owing to the less time allowed for drainage between the fillings.

We do not suggest that the water held in a clean and unmatured bed by capillary attraction, after the bed is emptied, has a serious practical effect upon the working capacity of a bed; but with a matured contact bed containing jelly-like masses of bacteria as well as sewage suspended matter in a very spongy state, the time allowed for drainage becomes a question of importance, and the volume of liquid dealt with, in practice, affects the capacity of contact beds. A rather larger quantity of filtering material would, for instance, be advisable at a sewage works, where two volumes of weak sewage were to be treated in contact beds, than at another where one volume of sewage, of twice the strength, had to be dealt with.

117. The value of rest to a contact bed in helping it to maintain its water capacity is well known. We may cite two cases; one relating to the treatment of a manufacturing sewage (Leeds), and the other to the treatment of a purely domestic sewage (Hampton).

> *Leeds.*—During the experiments upon the filtration of Leeds crude sewage, the primary bed, which started on October 2nd, 1897, with a water capacity of 83,000 gallons, had been reduced by February 2nd, 1898, to 45,000 gallons capacity. After a fortnight's rest its capacity was again measured, and found to be 56,000 gallons, or an increase of 11,000 gallons.
>
> A similar increase of capacity followed subsequent rests.
>
> *Hampton.*—At Hampton, No. 2 primary bed started in the early part of 1899 with an estimated water capacity of approximately 43,500 gallons, and was found on February 3rd, 1903, to have a capacity of only 8,637 gallons. On September 23rd, 1904, after a fortnight's rest, its capacity had risen to 12,965 gallons.

A gain of capacity in contact beds, by giving them rest, has been commonly noticed ever since they were first brought into use by Mr. Dibdin. For some time the cause of the gain was assigned to the biological digestion of the suspended matter caught in the material of the filter. A part of the gain in capacity which takes place during rest is no doubt due directly to this cause; but we think that much is due indirectly to the digestion tending to make the organic matter in the bed of a more granular and less spongy character. The ultimate gain in capacity is due to the water being able to drain away. It was shown, by Colonel Harding and Mr. Harrison at Leeds, that the deposit in a primary contact bed which had caused that bed to lose capacity contained something like 90 per cent. of water.

It must be remembered, however, that the gain in capacity which results from the resting of a clogged bed is generally only of a temporary character, a short rest of, say, a fortnight, serving for little more than to shrivel up the spongy and gelatinous matter in the interspaces of the bed. In many cases it has been observed that such matter returns to its original spongy state soon after the bed has been restarted. If a bed could be rested for a very long time, the sewage matter would become permanently granular through oxidation; but this is not practicable on a large scale, and as it would possibly result in the bed losing its maturity, it is important not to allow a contact bed to become so seriously clogged as to necessitate a prolonged rest.

As we have already intimated, it is important that the drainage should be efficient. Unless a bed is so constructed as to allow of proper drainage it will inevitably suffer rapid loss of capacity. Moreover its oxidising power will be impaired.

(8) *Suspended Matter in Liquid.*

118. Where the greater part of the suspended matter in the incoming liquid is allowed to find its way into the body of the material, the loss of capacity tends to vary in direct proportion to the amount of suspended solids in the sewage or tank liquor which is being treated. If very fine material is used in a bed, or if a bed of medium sized material is coated with a layer of very fine material, a large proportion of the suspended matter is caught upon the surface.

There is a large amount of experience showing that primary contact beds lose capacity at a greater rate than secondary beds, and we think there can be no doubt that this is largely due to the fact that the primary bed usually receives considerably more suspended matter. At the same time the facts that the suspended matter in a primary bed effluent is of a somewhat different character to the suspended matter in a tank liquor or a crude sewage, and that there is less colloidal matter in a primary bed effluent, would, to a lesser extent, account for the difference.

119. The following table shows the loss of capacity, per million gallons of liquor treated, at places which have been under our own observation, where septic tank liquor was treated on *primary* contact beds of medium sized material :—

Place.	Suspended matter in the liquor treated. (Hourly samples taken in dry weather.)	Age of beds in months.	Average number of times beds were filled per day.	Estimate of total number of gallons treated.	Loss of capacity in gallons.	Rate of loss of capacity per million gallons.
Guildford - - -	15·9	46	2·0	223·8 millions	108,794	486 gallons
Exeter (Main Works)	12·5	37	1·62	2,056 millions	750,750	365 gallons
Andover - - -	11·1	38	1·2	96 millions	79,600	828 gallons
Exeter (Old Works) -	8·2	109	1·64	196·2 millions	39,670	202 gallons
Slaithwaite - -	7·1	84	2·0	226·2 millions	33,755	149 gallons

With the exception of Andover, the loss of capacity per million gallons was, approximately, in proportion to the amount of suspended matter put upon the beds. The high rate of loss of capacity at Andover is accounted for by the fact that the material in the beds disintegrated to such an extent as to cause the surface level to sink considerably.

120. In connection with this matter we may refer to our Accrington * experiment. In that experiment two pairs of contact beds were run side by side for rather more than a year, one pair receiving two fillings per day of septic tank liquor, and the other pair receiving four fillings per day of the same tank liquor diluted with an equal volume of water. Both beds, therefore, received equal aggregate amounts of suspended matter. The capacity measurements throughout this time were as follows :—

	Primary bed treating septic tank liquor undiluted.	Secondary bed treating septic tank liquor undiluted.	Primary bed treating septic tank liquor diluted.	Secondary bed treating septic tank liquor diluted.
	Gallons.	Gallons.	Gallons.	Gallons.
May 3rd, 1905 (before starting) -	1,170	1,035	1,185	1,070
October 25th, 1905 - - -	810	1,080	770	940
June 6th, 1906 - - - - -	735	1,030	780	950

During this period, therefore, the two primary beds (of coarse material) lost capacity at, approximately, the same rate, the loss (435 gallons) in the primary bed treating the one volume of undiluted tank liquor being slightly greater than the loss (405 gallons) in the primary

* *See* pp. 110-117 and also Appendix IV.

bed treating the two volumes of diluted tank liquor. Even this small difference is explained by the fact that rather more than the proper proportion of suspended matter was, on the average, washed out of this bed, as the primary bed treating diluted tank liquor was emptied twice as frequently as the other. The average suspended matter in the effluent from the primary bed treating the one volume of undiluted tank liquor during the period was 6·3, and in the effluent from the primary bed treating the two volumes of diluted tank liquor 3·6 parts per 100,000. As the two primary effluents were discharged on to the two secondary beds (of fine material), the effect of the suspended solids was shown in these also, the difference in rate of loss of capacity being still further accentuated there by the fact that the secondary bed treating diluted tank liquor, unlike the primary bed, retained rather more than its proper proportion of suspended matter. The suspended matter in the effluent from the secondary bed treating undiluted tank liquor averaged 4·2, and in the effluent from the secondary bed treating diluted tank liquor 1·7 parts per 100,000. It is obvious, therefore, that, at any rate, the greater part of the disproportionate loss of capacity in the secondary bed treating the two volumes of diluted tank liquor was due to the fact that this bed received rather more suspended matter than the other secondary bed, and also held rather more back.

In June, 1906, the method of working the beds was altered. One set of beds then received two fillings per day of septic tank liquor undiluted, and the other set two fillings per day of septic tank liquor diluted with an equal volume of town's water. The first pair therefore received twice as much organic impurity, *including twice as much suspended matter*, as the second.

As will be seen from the following capacity measurements, the primary beds receiving the undiluted tank liquor soon began to lose capacity.

——	Primary bed treating septic tank liquor undiluted.	Secondary bed treating septic tank liquor undiluted.	Primary bed treating septic tank liquor diluted.	Secondary bed treating septic tank liquor diluted.
	Gallons.	Gallons.	Gallons.	Gallons.
June 6th, 1906 - - -	735	1,030	780	950
February 18th, 1907 - -	640	970	750	890

During this second period of working, the primary bed receiving one volume of undiluted tank liquor lost 95 gallons of capacity, while the primary bed receiving one volume of diluted tank liquor lost only 30 gallons. The average quantities of suspended matter entering and leaving the two primary beds for the period were as follows :--

——	Primary bed receiving one volume of septic tank liquor undiluted.	Primary bed receiving one volume of septic tank liquor diluted
	Parts per 100,000.	Parts per 100,000.
Average quantity of suspended matter going on to bed -	14·1	7·3
Average quantity of suspended matter coming out of bed	7·7	3·7

It might have been expected that the loss of capacity in the secondary bed treating the diluted tank liquor would have been only half the loss of capacity in the secondary bed treating the undiluted tank liquor. It will be seen, however, that the loss of capacity in the secondary beds was the same in each case. The suspended solids in the effluent from the secondary bed treating the undiluted tank liquor averaged 5·0 parts per 100,000,

but the suspended solids in the effluent from the secondary bed treating the diluted tank liquor, so far as we could judge from the centrifuge figures (which, however, can only be taken as approximate), were about one-third of this, the actual figures being as follows :—

	Secondary bed receiving one volume of septic tank liquor undiluted.	Secondary bed receiving one volume of septic tank liquor diluted.
	Parts per 100,000.	Parts per 100,000.
Average quantity of suspended matter going on to bed -	7·7	3·7
Average quantity of suspended matter coming out of bed	5·0	1·7 approx.

In both periods of working (May 3rd, 1905, to June 6th, 1906, and June 6th, 1906, to February 18th, 1907), the loss of capacity in every one of the four beds (primary and secondary) ran concurrently with the amount of suspended matter held back by the bed.

mpbell, 21665. arrison, 22016. alentine, 22462. ike, 23571.

121. A contact bed loses capacity rapidly at first, and subsequently at a diminished rate. Evidence in regard to this was given by Mr. Campbell, of Huddersfield, Mr. Harrison, of Leeds, Mr. Valentine, of Oldham, and Mr. Wike, of Sheffield, and others.

At Huddersfield the period of rapid loss in the case of the primary bed was within the first five months, and in the case of the secondary bed within the first twelve months. At Leeds it seems to have been within the first nine or twelve months ; at Oldham within the first twelve months ; at Sheffield, for the primary contact bed, within the first six months, and for the secondary bed, within the first twelve months.

We may also refer to the experimental Roscoe beds at Manchester which, after losing capacity for some time, eventually reached an equilibrium, and from then onwards maintained a constant water capacity so long as the suspended matter accumulating on the surface was periodically removed. These beds were filled with chemically precipitated sewage, which usually contains less colloidal matter than settled sewage or septic tank liquor.

It does not appear that any rule can be deduced as to the length of the period during which capacity is lost rapidly. It would, no doubt, partly depend both upon the rate of filtration and upon the amount of suspended matter reaching the bed.

How to Diminish the Rate of Loss of Capacity.

122. The capacity of a contact bed is best maintained by :—

Preventing as far as possible the access of suspended or colloidal matter to the bed ;

Using materials which are not liable to disintegrate ;

Using for the body of the filter material of even size, and in the form of cubes or spheres rather than flakes.

Allowing thorough and efficient drainage ;

Not over-working the bed ;

Giving periodical rests ;

Filling and emptying the bed in such a way as not to disturb the material.

The access of suspended matter to a contact bed is, in most cases, the chief cause of loss of capacity, and no doubt the rate of loss can be greatly lessened by carefully eliminating the suspended solids from the sewage before filtration.

Some small experimental filters at Kingston, fed with precipitation liquor, which had been produced by the "A.B.C." process, maintained their capacity in a remarkable manner. By this process a tank liquor is obtained containing a very small amount of suspended solids.

Even the best known means for removing the suspended matter by preliminary treatment does not get rid of it entirely, and it is generally advisable to provide a layer of fine material in the upper few inches of the bed, so as to prevent, as far as possible, the suspended matter from gaining access to the body of the bed.

Experience may show that it is economical to adopt some intermediate method of removing suspended matter from tank liquors. At Birmingham, Dortmund tanks are used for this purpose, and at Leeds, Chester, Ilford, and Guildford, mechanical straining has been tried. The latter method, however—as carried out at those places—has not been satisfactory.

The question whether it is more economical frequently to wash or renew the material in contact beds, or to remove the greater portion of the suspended matters from the liquor before it is treated, and to wash the beds less frequently, depends primarily on local circumstances.

Of the preliminary processes for removing suspended matter from sewage, chemical precipitation followed by either quiescent or continuous flow settlement is undoubtedly the most efficient of those at present known; but it involves a larger annual cost in most cases than settlement by means of settling or septic tanks, and there is a larger quantity of sludge to be dealt with.

Washing of Filtering Material.

123. The evidence shows that in many cases it is practicable and economical to wash filtering material which has become clogged. The cost varies according to local circumstances, and the following instances may be cited.

At *Burnley*, the material of several clogged beds was washed by means of an inclined rotary screen, 10 feet by 4 feet, fixed at a suitable elevation and so constructed as to be easily capable of removal from bed to bed as required. The arrangement admitted of washing, grading, and screening the material (clinker): the washing was effected by the tank effluent: and the power was supplied by a portable engine. Pickles and Ros 20785.

The cost of these operations was at the rate of 1s. per cube yard of material, which covered excavating, packing troughs, wheeling, and screening and washing not only the material excavated but also the additional material required to take the place of the old material rejected (about 10 per cent.) and filling it into the bed.

At *Leeds*, Mr. Harrison, the chemist to the Corporation, washed 1,020 cubic yards of material, by hand labour with screens and a heavy flow of water, at a cost of 2s. 5d. per cube yard. Harrison, 22017.

At *Manchester*, the washing of filtering material has been done on a very large scale, and is carried on continuously. The method employed is to pass the material from a sump to a jigging screen of $\frac{1}{4}$-inch mesh, over which are fixed a series of horizontal water sprayers. The material rejected by this screen is further graded by passing over a fixed 2-inch mesh screen. The material which passes through the $\frac{1}{4}$-inch screen falls on to an inclined fixed screen of $\frac{1}{8}$-inch mesh. All material above $\frac{1}{4}$-inch is replaced in the primary filters; that between $\frac{1}{4}$-inch and $\frac{1}{8}$-inch will be used for the surface of the secondary contact beds, when these are constructed. Settled sewage is the liquid used in the washing.

The total cost of removing, washing, screening and replacing in beds and making up to original level with new material at Manchester, is 1s. 6d. per cube yard. This does not include cost of washing machinery.

At *Birmingham*, 20,000 cubic yards of material were dealt with in the following manner: the material was dug out of the beds by manual labour and conveyed in tip wagons to a high platform by an electrically-driven winch; it was then passed through revolving screens and simultaneously washed with sewage.

The cost of removing, washing, screening and replacing material in the beds was at the rate of 11d. per cube yard. With the additional material required to make up to original level of bed, the total cost was 2s. 2½d. per cube yard. This does not include the cost of the washing plant.

At the *Beddington* and *South Norwood* sewage works of the Corporation of Croydon, filtering material has been washed on a large scale. The work was done by hand labour, and the cost of washing and replacing the material in the beds was approximately 1s. 2½d. per cube yard at Beddington, and 1s. 6d. per cube yard at South Norwood.

At *Andover*, the cost of washing and replacing material by hand labour, with a special apparatus devised by Mr. R. W. Knapp, the surveyor, was about 2s. 4d. per cube yard. This covered the initial cost of the washing apparatus.

At *Hampton*, washing is effected by means of a machine driven by compressed air. The cost of removing old material, screening, washing and replacing in bed, and providing new material to make up deficiency (25 per cent.), is 1s. 9¾d. per cube yard.

Campbell, 21852. At *Huddersfield*, the borough engineer found that the cost of washing material was not less than 4s. 6d. per cube yard. No information was given as to the method employed.

124. The cost of washing, etc., at the several places mentioned (except Huddersfield) is summarised in the following tables:—

MATERIAL WASHED BY MACHINERY.

Name.	Nature of liquid treated by beds.	Average amount of suspended matter in liquid going on to beds (parts per 100,000).	Time beds had been in use.	Nature and size of material.	Quantity of material dealt with (cube yards).	Cost per cube yard of washing operations, including making beds up to original level with new material, but excluding cost of washing plant and maintenance charges on same.	Cost per acre, 3 feet deep, of washing operations, including making beds up to original level, with new material, but excluding cost of washing plant and maintenance charges on same.	Percentage of original material replaced in bed.	Cost per cube yard of new material.	Remarks.
						s. *d.*	£ *s.* *d.*			
Burnley -	Septic tank liquor	5 to 6	3½ years	Clinkers (⅛″ to ½″)	3,350	1 0	242 0 0	60 per cent.	—	
Manchester -	Septic tank liquor	5 to 6	4 to 5 „	Clinkers (medium to coarse)	A very large quantity	1 6[b]	363 0 0	70 per cent. to 75 per cent.	½″ to 2″ 2*s.* 6*d.* to 3*s.*; over 2″ 3*s.* to 3*s.* 6*d.*[a]	[a]Delivered in the beds. [b]Final disposal of rejected material not included in this figure.
Birmingham -	Septic tank liquor	—	4 „	Clinker, Coke (fairly coarse)	20,000	2 2½	534 0 0	80 per cent.	6*s.* 6*d.*[c]	[c]New material—broken stones.
Averages - -	—	—	4 years	—	—	1 6¾	380 0 0	71·25	—	

MATERIAL WASHED BY HAND

Hampton - -	Crude sewage	48·5	2 to 4 years.	Clinker (medium to coarse)	260	2 6¾	620 0 0	Primary beds 75 per cent. Secondary beds 65 per cent.	—	
South Norwood -	Screened sewage	Not known	4 „	Burnt ballast (medium to coarse)	1,640	1 6	363 0 0	—	—	
Beddington -	Septic tank liquor		3¾ „	Flint and clinker (coarse)	15,377	1 2½	292 0 0	No appreciable loss with flints.	—	
Andover - -	„ „	11·10[e]	4 „	Clinker (½″ size free from dust)	490	2 4[e]	564 0 0[d]	—	—	[d]Including cost of plant.
Leeds - - -	—	—	—	—	1,020	2 5	584 0 0	—	—	[e]Based on the three sets of average samples, taken October, 1904.
Averages - -	—	—	About 4 years	—	—	2 0	484 12 0	—	—	

It should be added that washed material has an enhanced value for filtration purposes, due in great measure to the fact that the softer and more friable portions of the original material, which have become broken down, are eliminated in process of washing.

125. We may mention here that other plans for restoring contact beds which have become clogged have come under our observation at Hartley Wintney, Hendon, and Oswestry.

At *Hartley Wintney* the contact bed material (gas works clinker) was simply turned over. The amount dealt with was 679 cube yards; one man was employed; and the cost amounted to only 5½d. per cube yard.

The beds had been in use about four and a half years when the material was turned over.

The increase in capacity due to this process was, however, quickly lost again.

At *Hendon*, the ballast on the percolating beds was reburned. The cost amounted to 3s. 6d. per cube yard; but this covered the sifting out of the small material, wheeling out the fine stuff and spreading it, and relaying drains, etc. The beds had been in use for sixteen years.

At *Oswestry*, the old material of the beds was so disintegrated as to render washing impracticable, and there was sufficient new material (screened cinders) lying on the site. The old material (cinders) was therefore discarded and the beds filled with new material. The quantity dealt with was 1,550 cube yards, and cost of removing and renewal amounted to 2s. 7½d. per cube yard. The beds had been in use for about four years.

Filtering Material in Contact Beds.

126. The materials in general use for contact beds are clinker and coke, and experience of other materials is not very great.

With percolating filters, however, many different materials have been used, and although the actual working of percolating filters is different from that of contact beds, the results are, to a large extent, applicable. At York, a quantitative experiment with septic tank liquor was made by us on a circular percolating filter 7 feet 8 inches deep and constructed in four segments—one of clinker, one of coke, one of slag, and one of broken brick—the material in each case being broken and riddled as nearly as possible to the same size; the bulk of the clinker was, however, distinctly smaller than the other three materials. The results showed that the best effluent was obtained from the clinker segment, that the coke and slag segments gave very similar effluents, but not quite so good as the effluent from the clinker segment, and that the effluent from the broken brick segment was lowest in the scale of purity. All four effluents were of good quality.

Watson 25004. At Hendon the late Colonel Ducat obtained a better effluent from clinker in a percolating filter 8 feet deep than from pebbles in the same bed. At Birmingham Mr. J. D. Watson found that for percolating filters gravel has too smooth a surface. Dr. George Reid also stated in evidence that "any hard, non-friable material of irregular shape and not too smooth a surface, and one which is not liable to disintegrate is satisfactory as a Fowler, 22794. filtering medium for percolating filters."

The experience at Manchester, with regard to contact beds, has been that hard furnace clinker is the best material, being vesicular and yet permanent. Dr. Fowler, however, expressed the opinion that broken Staffordshire bricks, saggars and gravel, if properly sized, should do equally well.

It will be seen from the evidence that many witnesses have stated that substances like gravel, flints, or broken granite, are suitable as a filtering medium, but that, in most cases, tney have expressed a decided preference for the use of those materials which present the roughest and most irregular surfaces, such as clinker, coke, and saggars.

So far as our own experience goes, we should prefer, as a general rule, to use coke or good clinker in a contact bed in preference to other materials.* It is true that there is some evidence to the effect that rather better effluents can be obtained from contact beds of coke than from contact beds of clinker, but we think that this advantage is balanced by the tendency of the lighter material, coke, to shift slightly every time the bed is filled, and therefore to be more liable to disintegration.

* Broken "saggars" might be equally good, but we have had no experience of this material in contact beds.

In the choice of a filtering medium local circumstances must, of course, be taken into account. For example, there may be places at which a somewhat inferior material may be obtained at a very low price, and where it would be cheaper to renew the beds more frequently, or to provide a larger area of beds, than to pay the higher price for better material.

Probably most materials will purify sewage, but a larger quantity of smooth than of vesicular material would be required to produce equal purification.

127. Mr. W. J. Dibdin has lately advocated the use of large slabs of slate in primary contact beds, the horizontal layers of slate being separated from one another by cross pieces. He claims that crude sewage can be purified to a considerable extent in such beds, and that the sludge which accumulates in them can be periodically flushed out with water. Up to the present time we have had no experience of primary contact beds constructed in this way, beyond a single visit to Devizes where such beds were in use for the treatment of screened sewage. As a result of our inspection of the beds at Devizes, we came to the tentative conclusion that primary beds containing large slabs of slate must be regarded more as preliminary settling or septic tanks than as contact beds. As to the feasibility of washing such beds out, or as to the amount of digestion of sludge which takes place in them, we are unable to express an opinion.

Size of Material.

128. The smaller the size of material used in a contact bed the greater is the internal surface area exposed, and consequently the more intimate is the contact of the liquid with the material, the greater the purification, and the more efficient the arrest of the suspended and colloidal matter.*

The efficiency of a contact bed, however, depends very largely upon the admission of air to all parts of the filter during the time the bed is resting empty. Thorough and rapid drainage is therefore of the utmost importance.

For this reason, it is important that the material in a contact bed should not be *too* small, especially if the liquid to be treated contains an appreciable quantity of suspended matter, as some of this suspended matter will undoubtedly find its way into the interstitial spaces and prevent proper drainage of the bed. This was found to be the case with the fine beds at Devizes and Hampton.

At Devizes the contact beds were composed of very fine clinker broken to a diameter from $\frac{1}{4}$-inch downwards and including dust. Shortly after the beds were brought into operation, working at a rate of three fillings per day, it was found, on digging down into them, that the liquid of one filling had not drained away from the beds when the time for the next filling arrived. On examination it appeared that, although there was not actually a large quantity of sewage solids admixed with the filtering material, enough was present to bind the whole together, so that the bed drained away very slowly.

At Hampton the tertiary contact beds were composed of furnace clinker of $\frac{1}{4}$-inch or less, including dust, and after five years' work the material had settled into an almost solid mass, and the beds could only be filled with difficulty. The material, when turned out, presented a very similar appearance to that at Devizes, being closely bound together, although mixed with only a small proportion of sewage suspended matter.

129. If the liquid to be treated contained no suspended or colloidal matter, material as fine as medium sand would probably give the best results ; but if crude sewage were to be put upon this sand, the surface would become so clogged with sewage sludge in two or three fillings that the bed would be practically useless. The top layer would then have to be removed, or the bed would have to be rested until the sludge upon the surface had dried sufficiently to be raked off. Even if the top sand were constantly removed and replaced, it would be found, as at Hampton and Devizes, that some particles of suspended matter would penetrate into the interior of the bed, and that eventually the drainage of the bed would become defective.

* Note.—See Biltz and Kröhnke, Berichte, vol. xxxvii., p. 1745 ; Fowler and Ardern, J. Soc. Chem. Ind., vol. xxiv., p. 483 (1905) ; Jones and Travis, Proc. Inst. C.E., vol. clxiv., paper 3599, p. 32 (Jan. 1906) ; O'Shaughnessy and Kinnersley, J. Soc. Chem. Ind., vol. xxv. (April, 1906); Johnston, J. Roy. San. Inst., vol. xxvii., p. 10 (1906).

In deciding upon the size of the material to be used, the amount of suspended matter in the liquid to be treated, must be considered. As a general rule, the greater the amount of suspended matter in the liquid the larger the material should be.

With a crude sewage containing 40 parts per 100,000 of suspended matter, the material will probably have to be from 3 inches upwards in diameter, and even then sludge will accumulate on the top.

With a septic tank liquor containing 8 to 10 parts per 100,000 of suspended matter, material of a diameter from $\frac{3}{8}$ to $\frac{5}{8}$ of an inch may probably be used effectively; while with a good precipitation liquor containing from 1 to 3 parts of suspended matter, the best results will probably be obtained from material as fine as $\frac{1}{4}$-inch diameter.

130. It is, however, impossible to make any but the most general statement as to the most suitable size of material for contact beds, as, in some cases, there may be special circumstances which affect the question, such as the character of the suspended matters, or the smoothness of the filtering material. The sizes we have suggested are based on the evidence which we have received and also on our experience of contact beds at the places named in the following statement :—

	Suspended matter in the liquor treated (approximate figures).	Nature of material.	Size of the material in the contact beds.
Crude Sewage.	Parts per 100,000.		
Hampton	48·5	Clinker.	Above 4″ diameter.
Leeds	35·0	Clinker and coke.	Above 3″ diameter.
Newton-le-Willows	30·0	Clinker.	Top 18″—$\frac{1}{2}$″ to $\frac{1}{4}$″ diameter. Body of filter, 2″ to 1$\frac{1}{2}$″ diameter.
Withnell	20·0	Clinker.	1″ to 1$\frac{1}{2}$″ diameter.
Maidstone	14·0	Clinker.	Above $\frac{3}{4}$″ diameter.
Settled Sewage.			
Oswestry	About 20.	House coke.	1$\frac{1}{2}$″ to $\frac{1}{2}$″ diameter.
Halton	11·0	Clinker and pebbles.	1″ to 2″ diameter.
Septic Tank Liquor.			
Leeds	18·0	Clinker.	$\frac{5}{8}$″ to $\frac{3}{8}$″ diameter.
Guildford	16·0	Burnt ballast.	$\frac{1}{2}$″ to 3″ diameter.
Hartley Wintney	15·0	Clinker.	$\frac{1}{2}$″ to $\frac{1}{8}$″ diameter.
Exeter (Main)	About 14.	Clinker.	$\frac{1}{2}$″ to 1″ diameter.
Andover	12·0	Clinker.	$\frac{1}{8}$″ to $\frac{1}{2}$″ diameter.
Exeter (St. Leonards).	8·5	Clinker and coke.	$\frac{1}{2}$″ diameter.
Slaithwaite	8·0	Clinker.	Top foot—$\frac{3}{8}$″ to $\frac{1}{3}$″ diameter. Body of filter, $\frac{3}{8}$″ to 1″ diameter.
Precipitation Liquor.			
Calverley	12 to 14.	Clinker.	$\frac{1}{4}$″ to $\frac{1}{2}$″ diameter.
Kingston (experimental beds)	2·0	Clinker and coke.	Coke bed, $\frac{1}{4}$″ to 1″ diameter. Clinker bed, $\frac{1}{4}$″ to $\frac{3}{8}$″ diameter.

Grading of Material.

131. From our own observations, and from the evidence, we are of opinion that, as regards the bulk of the material in the bed, grading is not necessary, and that much labour and expense have sometimes been incurred, to very little purpose, in too great a refinement of grading. A certain amount of grading is, however, always necessary. Over the drains of the beds, for instance, material of fairly large size must be laid in order to prevent choking. Again, in order to preserve the life of a contact bed, it is advisable to retain as much as possible of the suspended matter upon the surface of the material, and this seems to be best effected by using fine material for the top 6 inches or so.

We may refer particularly to the evidence on this question which was given by Mr. D. Cameron (2091); Mr. Baldwin Latham (4505); Colonel Harding (7165-6); Dr. P. F. Frankland (9985-6); Mr. Bolton (21145); Mr. J. Kershaw (21464); Mr. Campbell (21655); Mr. Harrison (22008); Dr. Fowler (22795); Mr. Wike (23652); Mr. Wilkinson (24286); Messrs. Willcox and Raikes (26182).

Amount of Sewage which can be Treated on Contact Beds.

132. The amount of sewage which can be treated on contact beds chiefly depends on the strength of the sewage, on the quality of effluent which it is required to produce, on the amount of suspended solids in the sewage, and on the size of the filtering material. The question is dealt with in the section headed "General Conclusions as to the Working Power of Different Types of Filter," p. 117.

PERCOLATING FILTERS.

Depth of Percolating Filters.

133. The question of the depth of percolating filters is one of far greater complexity than at first sight appears. At most places the depth has usually been determined by the levels. If plenty of fall has been available, deep filters have been constructed, while at places with little fall, the material has usually been laid out in the form of a shallow filter. In other words percolating filters have usually been constructed as deep as levels would allow. In some cases the advantage of deep filters over shallow filters has even been considered sufficient to justify the adoption of pumping.

It has thus been generally accepted that, in the case of percolating filters, the deeper the material the better the result obtained. That there were good grounds for this conclusion will be seen from the following evidence.

At Accrington, in 1897, Mr. C. J. Whittaker, experimenting upon the depth of filtering material necessary for the purification of open septic tank liquor by means of the Whittaker and Bryant percolating filters, compared the results obtained from filters 6 feet and 9 feet deep, both constructed of the same coarse material and both receiving the same quantity of tank liquor *per square yard.* Mr. Whittaker found that the 9 foot bed gave better purification and higher nitrification than the 6 foot bed.

At Leeds, in the year 1900, Colonel T. W. Harding and Mr. W. H. Harrison, in their experiments upon the continuous filtration of crude sewage, touched upon the same point. In one of these experiments, which lasted for six months, Leeds crude sewage was allowed to trickle continuously through three filters one after another, one object of the experiments being to ascertain the purifying effect of each separate filter. The filters were 3′ 6″, 2′ 6″ and 2′ 6″ deep respectively, so that the total depth of the material, which consisted of coarse coke, was 8′ 6″. The average analyses of the effluents from each filter, from March to June, 1900, were as follows :—

Grains per gallon.

	Crude Screened Sewage.	First Filter 3′ 6″ deep.	Second Filter 2′ 6″ deep.	Third Filter 2′ 6″ deep.
Free Ammonia	2·36	1·58	1·15	0·83
Albuminoid Ammonia	1·04	0·59	0·43	0·29
Oxygen absorbed from permanganate in 4 hours.	8·90	4·37	2·78	1·93
Nitrogen as nitrates	—	—	—	0·14
Total solids	123·2	87·6	74·0	7·17
Suspended solids	44·2	19·2	7·9	7·7

Another experiment was made by Mr. Carter Bell, at Salford, during the years 1900 and 1901, on the depth of medium-sized material necessary for the purification of Salford precipitation liquor. In this experiment three percolating filters 8 feet, 5 feet, and 3 feet deep, all constructed of medium-sized clinker, received precipitation liquor at the same rate *per square yard.* Typical analyses of the effluent are given by Mr. Carter Bell as follows :—

Grains per gallon.

	Shallow filter 3 feet deep.	Medium filter 5 feet deep.	Deep filter 8 feet deep.
Free Ammonia	2·6	2·4	2·2
Albuminoid Ammonia	0·20	0·18	0·14
Oxygen absorbed from permanganate in 4 hours	1·1	0·8	0·5
Nitrogen as nitrates	0·84	1·10	1·30
Total solids	65·0	66 0	65·0
Koch's gelatine and incubation test	Fairly satisfactory	Satisfactory.	Very satisfactory.

At Horfield, Mr. F. W. Stoddart, experimenting with two filters of coarse clinker, one 7′ 6″ deep and the other 3′ deep, came to the conclusion that with an equal flow *per square yard* the deep filter gave the better results.

134. There were no doubt many other experiments of the same kind, showing that, when treating the same amount of sewage per square yard, the deeper the filter the greater is the purification effected. These experiments, however, do not show whether it is better to arrange a *given* quantity of material in the form of a deep or of a shallow percolating filter, and so far as we are aware no systematic experiments on the treatment of sewage or sewage liquor upon filters of different depths at equal rates *per cube yard*, instead of *per square yard*, were carried out until our observations were begun at Horfield and Ilford.

Horfield Experiments.

135. At Horfield, experiments were made in the years 1904-5, upon two filters of coarse clinker, one 7′ 5″ deep and the other 3′ deep, upon each of which quantities of Horfield precipitation liquor were treated at approximately the same rate *per cube yard* per day for ten months. Both filters were fed by means of Stoddart trays. The deep filter had a cubic content of 284 cube yards and the shallow filter of 27·56 cube yards.

The results showed that there was little to choose between the two effluents, though on the whole the effluent from the deep filter was slightly the better. At the same time, though the experiments showed that a coarse shallow filter (3 feet in depth) can quite well be made to give satisfactory results in the treatment of a precipitation liquor like that at Horfield, they also indicated that with coarse material, where the levels allow of it, a deep filter is on the whole preferable to a shallow one, especially where a strong liquor is being dealt with, since faults of distribution are toned down more.

Ilford Experiments.

136. At Ilford, a similar experiment with two very small percolating filters fed by means of Stoddart trays was made in 1903–4. The filters had the following dimensions :

Deep filter 12 feet by 9 feet and 6 feet deep.

Shallow filter 12 feet by 9 feet and 3 feet deep.

The material used was coke, from $1\frac{1}{2}''$ to $3''$ in diameter. Both filters were fed with septic tank liquor at the rate of 125 gallons per cube yard per day. The effluents obtained from both filters were usually non-putrescible, though not of high quality, the deep filter effluent being rather the better of the two.

In order to improve the distribution, the filters were to some extent remodelled in the early part of 1907 ; that is to say, the distributors were levelled and the upper layers of coarse coke were replaced by finer coke ($\frac{1}{4}''$ to $\frac{3}{8}''$ diameter) to the depth of six inches on the deep filter and 3 inches on the shallow filter. Immediately below these fine layers, there were four inches in the deep filter, and two inches in the shallow filter, of medium sized coke.

From April 15th to June 28th, 1907, the filters were brought to maturity with gradually increasing quantities of septic tank liquor. During the time of the actual experiment, which lasted from June 1st, 1907 to January 20th, 1908, the quantities of septic tank liquor treated were as follows :—

On the deep filter (12′ × 9′ × 6′)—3,000 gallons, or 125 gallons per cube yard per 24 hours.

On the shallow filter (12′ × 9′ × 3′).—1,500 gallons, or 125 gallons per cube yard per 24 hours.

Between these dates, ten corresponding samples of septic tank liquor and of both filter effluents were drawn. The average figures for the analysis of the septic tank liquor were as follows :—

Septic Tank Liquor.

Parts per 100,000.

—	Maximum and minimum figures.	Average figures.	Number of estimations.
Total nitrogen	4·95 – 8·40	6·75	10
Oxygen absorbed from permanganate at once	1·17 – 4·39	3·34	10
Oxygen absorbed from permanganate in four hours	5·54 – 8·64	7·43	10
Suspended solids	5·3 – 9·2	6·9	10
Volatile matter in suspended solids	4·2 – 6·9	5·4	10

The calculated strength* of this liquor is 78·7, or after allowing for the abnormal ratio of the figure for oxygen absorbed at once to the figure for oxygen absorbed in four hours, 67·6.

The following table shows the average figures of the analysis of both effluents, with and without suspended matter :—

Effluents.

Parts per 100,000.

—	Analysis of sample containing suspended solids.		Analysis of sample after filtration through paper.	
—	Deep filter effluent.	Shallow filter effluent.	Deep filter effluent.	Shallow filter effluent.
Number of samples included in the average	10	10	7	7
Ammoniacal Nitrogen	2·92	3·55	2·93	3·54
Albuminoid Nitrogen	0·47	0·47	0·25	0·28
Total Organic Nitrogen	0·79	0·84	—	—
Nitrous Nitrogen	0·13	0·15	0·13	0·15
Nitric Nitrogen	1·94	1·35	1·94	1·35
Total Nitrogen	5·76	5·64	—	—
Oxygen absorbed at once	0·86	0·86	0·49	0·58
Oxygen absorbed in 4 hours	3·12	3·09	1·71	2·11
Incubator test (Scudder)	All passed.	8 passed, 2 failed	—	—
Incubator test (by smell)	All passed.	9 passed, 1 failed		
Dissolved Oxygen taken up in 48 hours	2·05	1·74	0·65	0·79
Dissolved Oxygen taken up in 5 days	6·62	6·49	1·49	1·90
Solids in suspension	6·40	5·10	—	—
Volatile matter in solids	4 60	3·80	—	—
Solids by Centrifuge (Vols.)	73·0	60·2	—	—

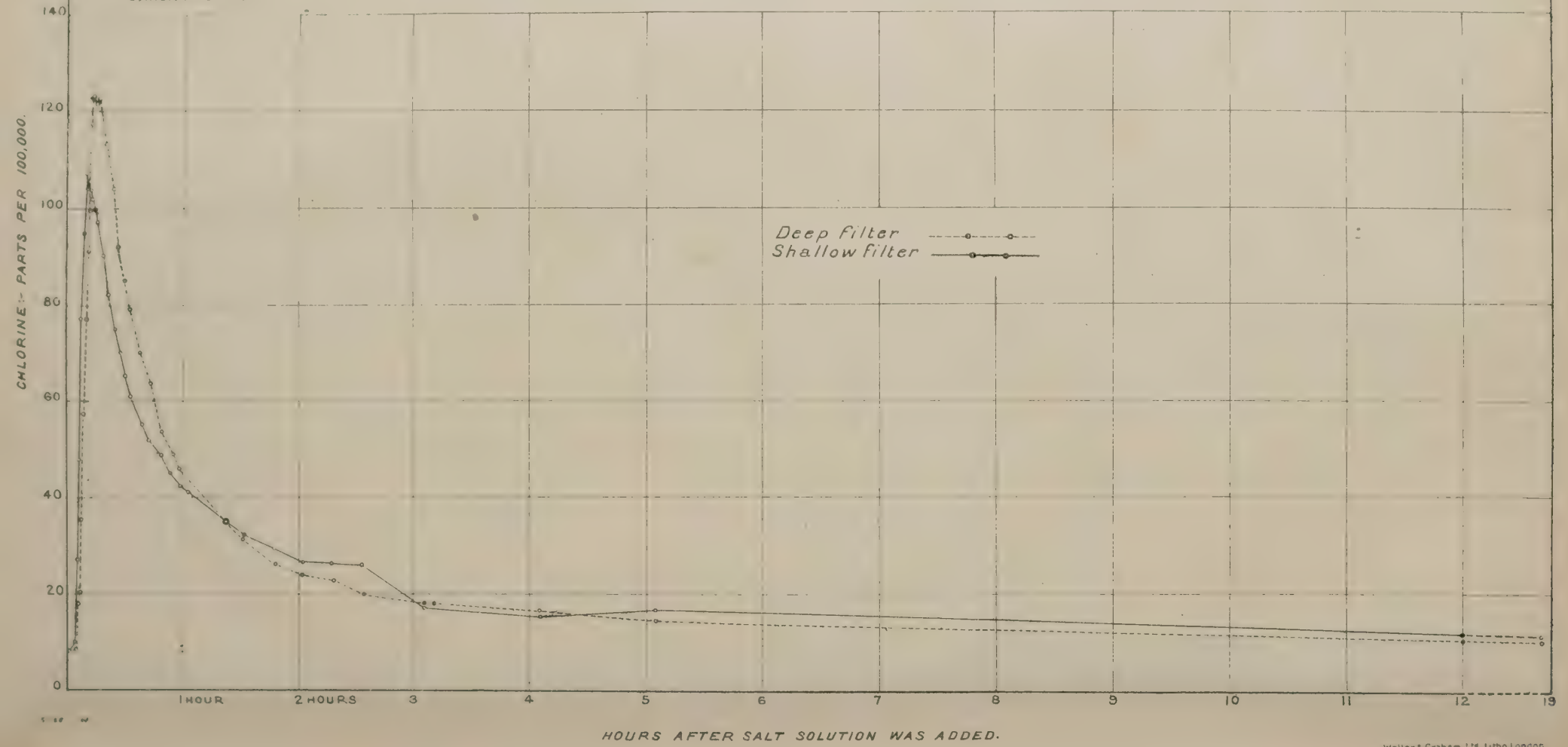
Apart from suspended solids, both effluents were of moderate quality, that from the deep filter being slightly better than that from the shallow filter as regards ammoniacal nitrogen and nitric nitrogen, the figures otherwise being very much alike.

* Strength means the number of parts by weight of oxygen required to oxidise 100,000 parts, arrived at on the basis of the formula suggested by Dr. McGowan : see p. 16 of this Report, and Dr. McGowan's Memorandum in Appendix IV.

DIAGRAM 1.

CURVES SHEWING THE RATES OF FILTRATION THROUGH TWO COARSE PERCOLATING FILTERS OF DIFFERENT DEPTHS AT ILFORD, AS TESTED QUANTITIVELY WITH A SOLUTION OF SALT.

(EACH SMALL CIRCLE REPRESENTS A CHLORINE ESTIMATION.)



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The following table showing the percentage purification obtained on the tank liquor, calculated in various ways, brings out the similarity :—

	Deep filter.	Shallow filter.
Calculated percentage purification on atmospheric oxygen used up (strength of septic tank liquor taken at 78·7). - - - - -	74·6	71·8
*Units of purification on this basis (including suspended solids) -	7,339	7,063
Calculated percentage purification on atmospheric oxygen used up (strength of septic tank liquor taken at 67·6) - - - - -	70·4	67·2
*Units of purification on this basis (including suspended solids) -	5,949	5,678
Calculated percentage purification, leaving out suspended solids (strength of septic tank liquor 78·7) - - - - - - -	86·3	81·4
Calculated percentage purification, leaving out suspended solids (strength of septic tank liquor 67·6) - - - - - - -	84·0	78·4

A little more work, *i.e.*, oxidation, was thus obtained from the deep filter per cube yard than from the shallow filter, but the difference was only slight, such as might be accounted for by the fact that imperfect distribution is more liable to affect the purification in a shallow filter than in a deep filter.

137. *For practical purposes we think the conclusion is justified that, within somewhat wide limits of depth, and given ample aeration and good distribution, the same amount of work can be got out of a cube yard of coarse material whether it is arranged in the form of a deep or of a shallow percolating filter.*

Rate of flow through Ilford filters.

138. With a view to ascertaining the relative rates of flow through the two filters the following experiment was made.

On January 9th, 1908, a strong solution of common salt was added to the septic tank liquor as it passed on to the two filters, samples of the effluent being taken at short intervals until almost all the salt had worked through the filters, a period in this case of about 19 hours.

The quantity of chlorine was then estimated in each sample.

It cannot be taken for granted that the passage of a solution of common salt through a filter is exactly similar to the passage of sewage impurity which is partly in true solution, partly colloidal, and partly in suspension. As sewage impurity passes through a filter it undergoes change, whereas the passage of a solution of common salt may be regarded for practical purposes as merely physical ; further, one may reasonably assume that sewage impurities are held up in the filter for a longer period of time.

The figures for the two filters were nearly alike throughout the experiment, but during the first hour a rather greater proportion of salt came through the deep filter, although, at the very beginning, the salt issued more quickly from the shallow filter. The figures are plotted out on Diagram I.

These experiments suggest that, given good distribution and ample aeration the extent of the purification effected by a percolating filter depends upon the length of time during which the liquor is in contact with the material, or, perhaps more correctly, upon the proportion of highly purified sewage in the effluent (*i.e.*, sewage which has taken hours to pass through the filter) to the proportion of sewage which has passed through more rapidly by following a much less circuitous route.

The three important factors which govern the rate of percolation are :

(1) The kind of material, *i.e.*, whether the surface is rough or smooth ;

(2) The size of the material ; and

(3) The state of the filter as regards the bacteria and growths attached to the material, and also as regards worms, larvæ, etc.

* As to the meaning of the term "units of purification" *see* p. 107 of this Report.

Influence of the Nature of the Filtering Material.

139. We may refer to three experiments relating to the purification effected on the same sewage liquor by different filtering materials, all graded to be as nearly as possible of the same size.

In 1903, a circular filter, consisting of four kinds of material arranged in segments entirely cut off from each other by partition walls, was constructed by Mr. A. Creer at the York Sewage Works. The particulars of this filter, which was started on April 29th, 1903, were as follows :—

Diameter	100 feet.
Depth of material	7 feet 8 inches.
Materials.	
First Segment	1,492 cube yards.
Clinker	$1\frac{1}{2}$ ins. to $3\frac{1}{2}$ ins. diameter.
Second Segment	312 cube yards.
Broken brick	$1\frac{1}{2}$ ins. to $3\frac{1}{2}$ ins. diameter.
Third Segment	189 cube yards.
Blast furnace slag	$1\frac{1}{2}$ ins. to $3\frac{1}{2}$ ins. diameter.
Fourth Segment	189 cube yards.
Gas coke	$1\frac{1}{2}$ ins. to $3\frac{1}{2}$ ins. diameter.

The filter was fed with septic tank liquor by a continuously revolving sprinkler, working automatically, and the rate of filtration on all four sections was approximately 360 gallons per square yard, or 140 gallons per cube yard, per day.

In June, 1904, we drew hourly samples of the effluent from each of the four segments over three complete days, the twenty-four samples from each segment being in each instance made up into a single sample for each complete day. As the three twenty-four hours' samples from each segment were very near to one another in chemical composition, only the average figures for each complete set of three days need be given here :—

Parts per 100,000.	Clinker.	Coke.	Slag.	Broken brick.
Ammoniacal Nitrogen	0·01	0·06	0·05	0·21
Albuminoid Nitrogen	0·10	0·10	0·12	0·15
Oxidized Nitrogen	2·90	2·47 approx.	2·32 approx.	2·48
Total Nitrogen	3·18	2·95	2·72	2·88
"Oxygen absorbed" at 27°C. (80°F.) *at once.*	0·38	0·49	0·63	0·63
" " " *in 4 hours.*	1·46	1·27	1.48	2·23
Dissolved Oxygen taken up in 24 hours at about 18°C.	0·09	0·19	0.24	0·37
Dissolved Oxygen, in c.c. per litre	0·65	1·32	1·72	2·57
Solids in suspension	2 15	1·22	1·73	2·00
Solids by Centrifuge (Vols.)	33·5	24·4	20·5	30·0
Ratio of Solids in suspension to Centrifuge solids	1 : 15·6	1 : 20·4	1 : 17·3	1 : 15·0
Incubator Test (Scudder)	All passed.	All passed.	All passed.	All passed.
" " (by smell)	All passed.	All passed.	All passed.	All passed.
Smell when analysed	All good.	All good.	All good.	All good.

All these effluents were very good. It will be seen, however, that if we differentiate between them, the following is the order of merit for the different materials :

(1) Clinker.
(2) Coke.
(3) Slag.
(4) Broken brick.

Between Nos. 2 and 3, the coke and the slag filter effluents, there is really no difference.

The foregoing experiment was made between June 27th and 30th, 1904, and we thought it well to test shortly afterwards—on July 19th—the comparative rates at which liquid coloured by fluorescine came through the different segments. The filtrates showed :—

	(*a*) Weak colour.	(*b*) Strong colour.
	Minutes.	Minutes.
1. Clinker	6	12
2. Coke	5	8
3. Slag*	8	9
4. Broken brick	2	2½

The order of the rate of percolation, as measured in this way, was thus the same as that of the purity of the effluent. Although the different filtering materials were all broken to be of the same size, the clinker was in reality somewhat smaller than the other three.

These experiments tend to confirm the view that the extent of the purification effected by a percolating filter depends upon the length of time taken by the sewage to pass through the filtering material, assuming always that the filter is properly aerated. Having regard to the vesicular nature of the clinker we should expect it to retard the passage of the sewage more than the broken brick, and hence to give a better effluent. The analytical results show that this was the case.

In his experiments at Hendon upon the filtration of crude sewage through medium-sized material, the late Colonel Ducat compared the results obtained from filters constructed of small pebbles and of clinker, both material being of the same size. The length of time taken by the sewage in passing through the clinker was, no doubt, greater than that taken by its passage through the pebbles, and the analytical results showed that better purification was obtained from the filter which was made of clinker.

In a laboratory experiment which was made by us at Leeds in the year 1900, we found that, using large smooth water-washed stones as the material in a filter five feet deep and one foot in diameter, and treating Leeds septic tank liquor at an approximate rate of about 70 gallons per cube yard per day, only traces of oxidised nitrogen appeared in the effluent after three or four months' working. Nitric nitrogen appeared in the effluents from the Whittaker filters at Leeds in a much shorter time than this. These latter filters were constructed of coarse coke or clinker and were fed with septic tank liquor at about the same rate, *i.e.*, 70 gallons per cube yard per day.

140. The results of these experiments may be summarised as follows :—

(1) Better results can be obtained per unit volume from a material with a rough surface than from a material with a smooth surface ; and

(2) The extent of the purification effected by a percolating filter varies with the average length of time taken by the sewage to pass through the filtering material, assuming that proper aeration of the filter is maintained.

Influence of the Size of the Material.

141. Although the experiments which we carried out at Ilford and Horfield showed that, with filters of coarse material, and given good distribution and ample aeration, a cube yard of filtering material will produce very similar results whether it is arranged in the form of a deep or of a shallow filter, it does not follow that this conclusion would apply to filters of medium-sized and fine material.

There are in reality three distinct classes of percolating filter in use for the purification of sewage or sewage liquors, viz. :—

(1) Percolating filters constructed of material coarse enough (say, over 2½″ in diameter) not only to give free access of air to its interior but also to allow the suspended matter in the liquid free passage through the whole depth of the filter. This is the class of filter to which the Ilford and Horfield experiments related.

* The amount of effluent coming from the slag segment was very small, owing to a strong wind on that side of the filter. The result for this section may therefore be of less value than would otherwise have been the case.

(2) Percolating filters constructed of medium-sized material (say, $\frac{1}{2}''$ in diameter), which temporarily retards the passage of suspended matter through the filter, while allowing free access of air to the interior.

(3) Percolating filters constructed of very fine material.

Percolating Filters Constructed of Medium-Sized Material.

142. In filters constructed of medium-sized material the suspended solids are arrested and held for some time in the upper layers of the material, and this part of the filter therefore receives a larger proportion of oxidizable suspended matter than the middle or lower parts. Where much suspended matter has to be dealt with, such filters tend to become choked in the uppermost few inches of the material, and to prevent the proper distribution of the liquid over the bed. In a filter of this kind, air is probably carried into the interior from the top downwards by the fall of the sewage liquor upon the material. There are many examples of filters of this class where the material is held in position by solid walls and where air could only gain access to the filter either through the outlet valves connecting to the drains or through the surface of the material. Colonel Harding and Mr. Harrison, at Leeds, showed clearly that after serious ponding took place on the surface of a filter of medium-sized material, although provided with perforated walls which would allow of side aeration, oxidized nitrogen almost entirely disappeared from the effluent, and the effluent then became putrescible. This experiment, however, does not conclusively show that aeration does not also take place through the sides of a filter with perforated walls, as the deterioration of the effluent might have been due to the unequal passage of the sewage liquor through the bed owing to impaired distribution, and so far as we are aware no experiments have been made which show conclusively how the interior of a percolating filter of medium-sized material is replenished with air.

On general grounds, we should think it better to arrange a given volume of medium-sized material in the form of a shallow rather than of a deep percolating filter. In this way better aeration would be maintained throughout the filter and the suspended solids in the liquor treated would be spread over a greater quantity of the filtering material.

Percolating Filters Constructed of Very Fine Material.

143. In filters constructed of very fine material, the material not only retains suspended matter on the surface, but also prevents the free access of air to the interior. When sewage liquor is applied to such a filter, almost the whole of the suspended matter is retained on the surface of the material, with the result that after a time the surface becomes completely choked. The filter has then either to be washed by upward flow, with simultaneous raking of the top few inches of the fine material, or it must be rested until the suspended matter on the surface is sufficiently dry to be raked off.

In the majority of cases, these filters are fed from a flushing tank, or the fine material itself is wholly relied upon for aiding uniform distribution. As showing that in the latter case (and presumably in the former also) a filter depends chiefly upon periods of rest for the access of air to the interior, we may quote the following experiment :—

At Prestolee, in Lancashire, there are three small filters which have a surface layer of very fine clinker : the material at the bottom of the filter is about one inch in diameter. The filters are entirely closed in at the sides, and at the bottom connect with the air through a single outlet valve only. The method of working the filters is simply to allow the septic tank liquor to flow on to the surface of one of them by means of half pipes, and then to percolate through to the outlet drains. The suspended matter in the tank liquor, being caught on the surface, soon chokes the fine material near the half pipes, and the liquor then gradually spreads over the whole surface of the filter. When the surface is about two-thirds or four-fifths ponded, the tank liquor is diverted to the second filter and the first is allowed to rest and dry off, after which the suspended matter is carefully removed with a spade.

144. In order to gain some idea as to how long it would be possible to work one of these filters without resting, the following experiments were made :—

On Wednesday, January 4th, 1905, at 2.30 p.m., septic tank liquor was turned on to Bed No. 1, which had previously been rested for 29½ hours, *i.e.*, a shorter period of

rest than the usual two days. The first samples of effluent from the bed were drawn thirty minutes after the start, at which time the effluent had begun to flow out at a fair rate, and others were taken out from time to time, as shown in the table below. The experiment lasted until January 9th, at 4.20 p.m., *i.e.*, for fully five days, the weather for the greater part of this time being showery, but the flow of sewage never much above the normal.

During the course of the experiment, four samples of septic tank liquor were drawn, viz :—

On January 4th at 2.30 p.m.
On January 5th at 10.45 a.m.
On January 6th at 9.45 a.m.
On January 9th at 4.0 p.m.

These samples were very much alike in composition, and the figures of analysis are therefore averaged in the table, and placed in one column. Incidentally they show that the liquor is very weak, but this is quite normal for Prestolee.

	Average of 4 Septic Tank Liquors.	Effluents.					
Drawn - -		Jan. 4th., 30 minutes after starting filter.	Jan. 4th., 6½ hours after starting filter, the surface of which was then three quarters ponded.	Jan. 5th., 20¾ hours after starting filter, the surface of which was then four-fifths ponded.	Jan. 5th., 27½ hours after starting. Surface almost completely ponded	Jan. 6th., 43¾ hours after starting. Surface nine-tenths ponded.	Jan. 9th., 121½ hrs. after starting. Filter surface then completely ponded.
Analysed: - -		Jan. 5th.	Jan. 6th.	Jan. 6th.	Jan. 9th.	Jan. 9th.	Jan. 10th.
Parts per 100,000.							
Ammoniacal Nitrogen -	0·75 (4) *	0·04	0·19	0·28	0·26	0·32	0·60
Albuminoid Nitrogen -	0·22 (4)	0·07	0·06	0·05	0·07	0·07	0·07
Oxidized Nitrogen -	—	0·90	0·44	0·40	0·32	0·27	0·00
"Oxygen absorbed" *at once* at 27°C - -	0·76 (4)	0·14	0·23	0·17	0·29	0·35	0·31
"Oxygen absorbed" *in 4 hours* - - - -	3·21 (4)	0·56	0 91	0·47	0·77	0·81	0·65
Dissolved oxygen taken up in 24 hours at 18°C -	1·20 (1)	0·48	0·62	0·85	0·56	0·66	0·55
Incubator test (Scudder) -	—	Passed.	Passed.	Passed.	Passed.	Passed.	Failed.
„ „ (by smell) -	—	Passed.	Passed.	Passed.	Passed.	Passed.	Failed.
Smell when drawn - -	—	Faint soapy.	Good.	Good.	Good.	Good.	Strong sewage.
Smell when analysed -	—	Slight soapy and earthy.	Slight soapy.	Good.	Slight soapy and earthy.	Good.	Slightly unpleasant.
Chlorine - - -	2·93 (4)	—	—	—	—	—	—
Solids in suspension -	6·42 (2)	—	—	—	—	—	—
Solids by centrifuge (vols.)	17·4 (3)	0·0	0·0	0·0	0·0	0·0	0·0
Oxygen in solution (when analysed) - *c.c. per litre* †	—	5·6	4·2	5·1	0·0	1·0	0·7

* The figures in brackets indicate the number of estimations in each case.

† In comparing the figures for dissolved oxygen found on the day of analysis, it is important to note that these estimations were made at different intervals of time after the samples were drawn. Those which could not be examined at once were kept in ice, but the second sample of January 5th was at atmospheric temperature for two days after being drawn; this no doubt accounts for its oxygen being exhausted.

At 6½ hours after the start, the bed had become ponded over three-fourths of its surface and the ponding gradually increased, but with fluctuations, until the bed was completely under water.

Concurrently with this, the figures for ammoniacal nitrogen and for nitric nitrogen (no nitrite being present in any sample on the day of analysis) show that the oxidation gradually decreased as the experiment proceeded. The figures both for "oxygen absorbed" from permanganate and for dissolved oxygen absorption are less regular, but this is no doubt partly due to the fact that all the effluents could not be examined at equal intervals of time after they were drawn. After five days the effluent even from this very weak tank liquor became putrescible.

145. It is clear, therefore, that percolating filters of very fine material can only be worked for a certain limited time without being rested, and, in order to obtain the maximum amount of work out of a given quantity of fine material, it would seem better to arrange it in the form of a shallow rather than in the form of a deep filter, provided the distribution is efficient.

Depth of Fine Percolating Filters.

Reid, 27075–27164.

146. The question of the most suitable depth for fine filters was specially brought to our notice by Dr. George Reid, the Medical Officer of Health for the County of Staffordshire.

In connection with his investigation of the fine grain filters at Hanley, Dr. Reid collected samples at the following depths from the surface of the filters, viz. :—1 foot, 2 feet, 3 feet, and (the bottom) 4 feet 6 inches.

The analyses of these samples, and also of the septic tank liquor, the detritus tank liquor, and the original sewage, are given in the following table :—

Parts per 100,000.

	Sewage.	Detritus Tank.	Septic Tank.	Filter 1 foot	Filter 2 feet	Filter 3 feet	Filter 4·5 feet
No. of Records	18	13	16	16	16	16	16
Total Solids	170 9	118·1	107.8	101·5	101·1	101·8	103·5
Solids in Suspension	63·5	17·0	7·6	0·25	0·09	0·14	—
Solids in Suspension (Organic)	28·5	6·8	3.8	0·16	0·05	0·06	—
Solids in Suspension (Mineral)	34·9	10·1	3·8	0·08	0·03	0·08	—
Chlorine	11·0	10·0	9·9	9·4	9·5	9·4	9·5
Free Ammonia	2·154	1·643	1·716	0·036	0·020	0·009	0·043
Albuminoid Ammonia	0·972	0·486	0·340	0·052	0·037	0·031	0·027
*Oxygen absorbed in 4 hours at 80°F.	5·019	2·726	2·184	0·328	0·286	0·244	0·259
*Oxygen absorbed in 3 minutes before incubation	1·862	0·975	0·836	0·093	0·077	0·060	0·070
Oxygen absorbed in 3 minutes after incubation (3 days)	2·176	1·095	1·571	0·0677	0·060	0·052	0·039
Nitric Nitrogen on day of collection	0·02	0·02	Nil	1·64	1·82	1.75	1·70
Nitric Nitrogen day after collection	0·10	0·09	0·09	2·07	1·99	1·85	1·99
Nitrous Nitrogen on day of collection	0·029	0·014	Nil	0·003	0·011	0·005	0·005
Nitrous Nitrogen day after collection	0·029	0·022	Nil	0·003	0·007	0·008	0·002
Column necessary to obscure test lines (inches)	0·5	1·6	1·5	Over 24	Over 24	Over 24	Over 24

From these experiments Dr. Reid had drawn the inference that, in the case of the Hanley sewage "the lower two or three feet of filter medium is absolutely unnecessary, and so far as the cost of construction of the filters is concerned, the expenditure might be reduced by about one half."

* From weak permanganate.

He also suggested that a much better result would be obtained from a given quantity of *fine* filtering material if it were arranged in the form of a shallow filter, than if it were arranged in the form of a filter 6 feet deep; and, further, that to estimate the amount of filter required for a given flow of sewage, in cubic yards, without reference to the depth of the filter, was open to objection, inasmuch as the lower layers of a fine filter were less efficient than the top one or two feet. Reid, 27145.

The points raised by Dr. Reid are of considerable importance, and we considered it desirable to make further experimental investigations in regard to them, especially as the results obtained at Hanley in respect of fine filters differed so materially from the results which we had obtained elsewhere with coarse filters.

Dorking experiments as to depth of filters.

147. Our experiments were carried out at Dorking, under the charge of Mr. E. H. Richards, our resident chemist. For the purpose of the experiments, we constructed two filters 4 feet 10 inches deep, one filled with fine material and the other with coarse material, and two filters 2 feet 5 inches deep, one filled with fine material and the other with coarse material.

For convenience the two deep filters were constructed in the form of one circular filter with a dividing partition between the coarse and fine material. The shallow filters were also constructed in a similar manner. The distribution was by means of revolving sprinklers, fed intermittently from small tipping troughs. At the suggestion of Dr. Reid, who very kindly gave every possible help in the planning of the experiment, the distribution was carefully tested before the experiment started and was found to be as perfect as could reasonably be expected. The flush of tank liquor (5 gallons) on to the filters took place as follows :—

During Experiment I. - - once every 7 minutes.

During Experiment II. - - once every $3\frac{1}{2}$ minutes.

The following table gives particulars of the four filters :—

Dorking Experimental Filters.

——	Material.	Depth of Material.	Size of Material.	Contents of filter.
				Cube yards.
Coarse Shallow Filter - -	Clinker.	2′ 5″	1″ to 4″ throughout.	5·14
Coarse Deep Filter - - -	Clinker.	4′ 10″	1″ to 4″ throughout.	10·28
Fine Shallow Filter - -	Clinker.	2′ 5″	Top 1′ 2½″ of ⅛″ to ¼″ diam. Bottom 1′ 2½″ of ¼″ to ½″ diam.	5·14
Fine Deep Filter - - -	Clinker.	4′ 10″	Top 2′ 5″ of ⅛″ to ¼″ diam. Bottom 2′ 5″ of ¼″ to ½″ diam.	10·28

The sewage treated in the experiments was drawn, by means of a bypass, from the Dorking outfall at a constant flow. It may be described as almost entirely domestic sewage of about average strength.

Table I. shows the figures of analysis given by 21 sets of average samples of the sewage taken from November, 1905, to November, 1906.

TABLE I.

Figures for Screened Sewage.

24-hours samples.

Parts per 100,000.	Average.	No. of estimations.
Ammoniacal Nitrogen (2·63 to 5·69)	4·65	21
Albuminoid Nitrogen (0·56 to 1·66)	1·00	20
Total Organic Nitrogen (1·17 to 3·11)	1·92	20
Oxidized Nitrogen (0·00 to 0·76)	0·11	21
Total Nitrogen (4·51 to 5·88)	6·72	20
Oxygen absorbed at once at 27°C. (1·20 to 3·41)	2·38	21
Oxygen absorbed in 4 hours (6·37 to 14·77)	10·01	21
Solids in suspension (11·7 to 32·8)	21·50	21
Calculated strength* 96	—	—

* Strength expressed in terms of the number of parts by weight of oxygen required to oxidize 100,000 parts of sewage, arrived at on the basis of the formulæ suggested by Dr. McGowan—*see* p. 16 of this Report, and Dr. McGowan's Memorandum in Appendix IV.

The sewage, before filtration, was precipitated with ten grains of alumino-ferric and five grains of lime per gallon, and was then allowed to pass through a tank of sufficient capacity to give ten hours continuous flow settlement. The tank was cleaned once a week, as a rule, but twice a week in hot weather.

Experiment I. (*June* 17*th*, 1907, *to October* 17*th*, 1907.)

148. On June 17th, 1907, the four filters were started working at the rate of seventy-five gallons per *square yard* per day for each filter. This was equivalent to a rate of ninety-three gallons per cube yard for each shallow filter and 46·5 gallons for each deep filter. This small dose was intentional, the idea being to work the filters with gradually increasing volumes of liquor and to note the order in which the effluents deteriorated in quality. The above rate of working continued without cessation until October 17th, 1907. The surface material of the coarse filters was soon covered with a green growth as is usual at Dorking at that time of the year. The growth was thin and had no apparent effect upon the aeration of the filters or upon the passage of the tank liquor through the material.

The material in the two fine filters was comparatively free from growth, and at no time during this experiment did any ponding of the surface occur. The upper layers of the fine material swarmed with small red worms.

During the four months all the effluents and the precipitation liquor were examined by sets of average samples drawn hourly for eight hours every eight days.

The figures given in Table II. are therefore representative of the working of the filters under all conditions.

Table II.

Deep and Shallow Filter experiment.

Average Figures of Analysis for Precipitation Liquor and Effluents.

All Filters working at the rate of 75 gallons per square yard.

Twelve Analyses.

June 27th to September 27th, 1907.	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Nitrous Nitrogen.	Nitric Nitrogen.	Oxygen absorbed in 3 minutes at 27° C.	Oxygen absorbed in 4 hours at 27° C.	Dissolved oxygen taken up in 48 hours at 18° C.	Dissolved oxygen taken up in 5 days at 18° C.	Incubator test (Smell).	Solids in Suspension.	Centrifuge (Volumes).	Chlorine.	Rate of Filtration in Galls. per cube yard.
Precipitation liquor	4·94	0·51	0·02	0·08	1·72	5·44	—	—	—	5·73, 3·53 (vol.) 2·20 (non-vol.)	60	—	—
Coarse shallow filter effluent	0·66	0·11	0·14	3·14	0·47	1·35 1·12 (paper filtered)	0·57	1·47 0·48 (paper filtered)	12+	1·53, 0·99 (vol.) 0·54 (non-vol.)	27	—	93
Coarse deep filter effluent	0·14	0·08	0·05	4·03	0·31	0·91 0·76 (paper filtered)	0·24	0·67 0·32 (paper filtered)	12+	1·28, 0·77 (vol.) 0·51 (non-vol.)	26	—	46·5
Fine shallow filter effluent	0·08	0·04	0·04	4·00	0·27	0·57	0·04	0·12	12+	—	None	—	93
Fine deep filter effluent	0·03	0·04	Trace.	4·26	0·16	0·51	0·03	0·15	12+	—	Trace	—	46·5

The sign + means that the sample did not putrefy on incubation.

The precipitation liquor treated was fairly strong. It had a calculated strength * of about sixty-one.

The effluents from the two coarse filters were both very good, but the *liquid* portion of effluent from the deep filter contained only about two-thirds as much oxidizable matter as that from the shallow filter, as judged by the oxygen absorbed test. The difference is shewn by the following figures :—

	Effluent from the coarse shallow filter.	Effluent from the coarse deep filter.
Ammoniacal nitrogen	0·66	0·14
Nitric nitrogen	3·14	4·03
Oxygen absorbed in 4 hours by paper-filtered effluent	1·12	0·76
Dissolved oxygen taken up in 5 days by paper-filtered effluent	0·48	0·32

The effluents from the two fine filters were, for practical purposes, alike, the oxidation having been carried very far in each case, as is shown by the following figures :—

	Effluent from fine shallow filter.	Effluent from fine deep filter.
Ammoniacal nitrogen	0·08	0·03
Nitric nitrogen	4·00	4·26
Oxygen absorbed from permanganate in 4 hours	0·57	0·51
Dissolved oxygen taken up in five days	0·12	0·15

All four effluents may be classed as good to very good, and all the filters were sufficiently, or more than sufficiently, deep, for the volume and the strength of the liquid treated.

The results from the deep and shallow fine filters are in agreement with those obtained by Dr. Reid at Hanley. They show that, *with the amount of sewage liquor being treated*, the extra depth in the deep filter was not required ; or, in other words, that passage through the first half of the deep filter was sufficient to oxidize almost the whole of the oxidizable matter in the liquor put on the filter.

Salt Experiment I.

149. At the conclusion of this first experiment an attempt was made, as at Ilford, to find the approximate average time taken by the precipitation liquor to pass through each filter.

About 28 lbs. of common salt were dissolved in water, and half the solution was poured into the tipping-trough supplying each pair of filters, in such a way as to interfere as little as possible with the natural working of the distributors.

Approximately 7 lbs of salt were thus flushed on to each filter.

Samples of the four effluents were taken first at one minute intervals, and subsequently at longer intervals over a period of 56 hours, until the salt had apparently all passed through the filters.

The chlorine in these samples plotted against time of drawing is shewn in Diagram 2.

These curves suggest the conclusion that a sample of effluent drawn at a given time is composed of a mixture of liquid which has been in contact with the filtering material for times varying (in all four cases) from about thirty minutes or less, to something like sixty *hours* or more.

The proportion of liquid which has been in contact with the filtering material for a short time to the proportion of liquid which has been in contact for a long time would largely depend upon the depth of the filter, and upon the nature and size of the material of which the filter is composed.

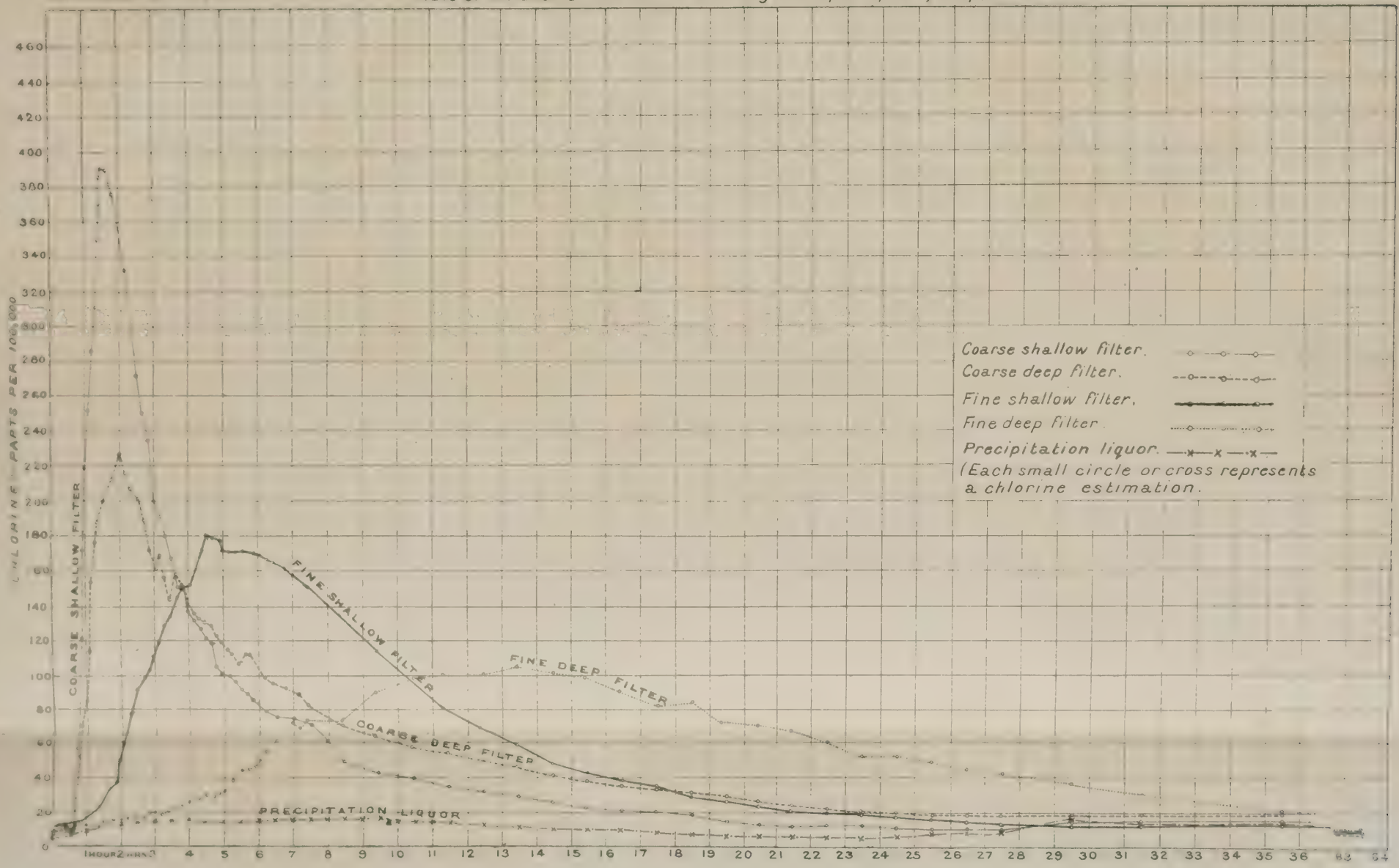
* *See* section of this Report on Strength of Sewage, p. 15.

CURVES SHEWING THE RATES OF FILTRATION THROUGH THE TWO COARSE AND THE TWO FINE FILTERS AT DORKING, AS TESTED QUANTITIVELY WITH A SOLUTION OF SALT.

OCTOBER 9TH 1907

Rate of filtration on all four filters = 75 gallons per square yard per 24 hours.

DIAGRAM 2



HOURS AFTER SALT SOLUTION WAS ADDED.

Weller & Graham Lith. the London

To draw any exact conclusions as to the average time of contact in each of the four filters appears to be almost impossible. We may, however, give the following ratios, etc :—

—	Total quantity of salt washed out of filter in 30 hours.		Time taken for half the average quantity of salt to wash out.		Hour line upon which the centre of gravity of the curve figure falls.		Total area enclosed by the curve figure.	
	Weight in lbs.	Proportion to 7 lbs	Hours.	Time ratio.	Hours	Hour line ratio.	Cubic inches.	Area ratio.
Coarse shallow filter - -	4·36	0·62	3·0	1 0	5·33	1·00	12·9	1.00
Coarse deep filter - -	4·59	0·65	5·5	1·8	9·0	1·63	13·0	1·01
Fine shallow filter - -	4·98	0·71	7·0	2·3	9·0	1·63	14·0	1·08
Fine deep filter - - -	5·42 (39 hrs.)	0·77	14·5	4.8	17·0	3·10	14·0	1·08
Average - - - -	4·83	—	—	—	—	Average.	13·5	—

As judged by the time taken for half the average weight $\left(\frac{4{\cdot}83}{2}\text{lbs.}\right)$ of salt to issue in the effluent, the time of contact in the coarse deep filter was nearly double that given in the coarse shallow filter, and rather less than the time of contact given in the fine shallow filter. In the fine deep filter it was almost exactly double the time given in the fine shallow filter.

Upon this basis of calculation, the fine deep filter ought to give the best effluent, the fine shallow filter the next, the coarse deep filter the next, and the coarse shallow the worst. The quantities of oxidizable matter treated were not sufficient to give any true idea of the relative oxidizing power of each filter, but it will be seen that the figures of analysis do arrange the effluents in this order.

Experiment II. (*October 18th,* 1907, *to January 12th,* 1908.)

150. On October 18th, 1907, the rate of working was increased to 150 gallons per *square yard* per day for each filter. This was equivalent to a rate of 186 gallons per cube yard for each of the two shallow filters and 93 gallons for each of the two deep filters. This rate of working continued until December 22nd, when all the filters were given a week's rest in cold dry weather. On December 29th they were started again at the same rate, and from this time they worked without cessation until January 28th, when the experiment stopped.

The increased rate of working and the low atmospheric temperature showed their effects on the nitrification, the ammonia rising and the nitrate falling in all the effluents. Moreover, a grey growth (*Cladothrix dichotoma*, Cohn) made its appearance and began to flourish on the surface of the two coarse filters towards the end of October, gradually increasing in thickness during the two following months.

The same growth appeared on the surface of the two fine filters; this also increased, but never to anything like the same extent as on the coarse filters. On November 20th local ponding began on both fine filters, being rather worse on the shallow filter than on the deep. On December 2nd both the fine filters were raked over for the first time, and as this was done afterwards whenever necessary, neither the growth nor the suspended matter caught in the top few inches of the fine clinker had very much effect upon the working of these filters. There is no doubt that the effect of the growth was much more marked in the case of the two coarse filters.

The severe frosts in January killed off the growths on the fine filters, and to a certain extent on the coarse filters also, but with the return of the milder weather the growth re-asserted itself. Although the filters were at times completely frozen over between the jets of the sprinklers, none of the effluents deteriorated seriously. The coarse deep filter suffered most in this way from its exposed position.

The averages of the figures of analysis are given in Table III.

They were obtained from samples drawn in an exactly similar way to those in Experiment I.

TABLE III.

Deep and Shallow Filter Experiment.

Average Figures of Analysis for Precipitation Liquor and Effluents.

All Filters working at the rate of 150 gallons per square yard.

Ten Analyses.

October 22nd, 1907, to January 12th, 1908.	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Nitrous Nitrogen.	Nitric Nitrogen.	Oxygen absorbed in 3 minutes at 27° C.	Oxygen absorbed in 4 hours at 27° C.	Dissolved Oxygen taken up in 48 hours at 18° C.	Dissolved Oxygen taken up in 5 days at 18° C.	Incubator test (smell)	Solids in Suspension.	Centrifuge (volumes).	Chlorine.	Rate of filtration in gallons per cube yard per day.
Precipitation Liquor	4·13	0·50	0·09	0·19	1·44	4·85	—	—	—	5·70, 3·03 (vol.) 2·67 (non-vol.)	64	7·48	—
Coarse shallow filter effluent	0·99	0·16	0·08	2·23	0·41	1·26 0·87 (paper filtered)	1·00	2·42 0·52 (paper filtered)	10+	2·65, 1·75 (vol.) 0·85 (non-vol.)	53	7·05	186
Coarse deep filter effluent	0·55	0·10	0·07	2·69	0·27	0·94 0·79 (paper filtered)	0·51	1·40 0·42 (paper filtered)	10+	1·51, 1·09 (vol.) 0·42 (non-vol.)	34	7·07	93
Fine shallow filter effluent	0·86	0·11	0·05	2·80	0·34	0·90	0·46	1·03	10+	1·00 (approx.)	26	7·02	186
Fine deep filter effluent	0·35	0·06	0·03	3·25	0·24	0·60	0·21	0·42	10+	0·25 (approx.)	5	7·02	93

In this second experiment, the precipitation liquor treated was distinctly weaker than it was in the first experiment. Its calculated strength was only fifty-four as against sixty-one. This was no doubt owing to the heavy rainfall in the last months of the year.

Comparing the effluents from the the two coarse filters, we have the following figures :—

	Effluent from the coarse shallow filter.	Effluent from the coarse deep filter.
Ammoniacal Nitrogen	0·99	0·55
Nitric Nitrogen	2·23	2·69
Oxygen absorbed in 4 hours by paper-filtered effluent	0·87	0·79
Dissolved Oxygen taken up by paper-filtered effluent in 5 days	0·52	0·42

It would have been expected that with the greater flow per cube yard the difference between the effluents from the two coarse filters would have become accentuated, but in actual fact it is, if anything, rather less than it was in Experiment I, though at the same time neither effluent was of quite such good quality. The explanation of this result is, we think, to be found in the development of growths upon the surface of the coarse material and some way down into it which took place during the experiment. This undoubtedly interfered with the normal working and, as will be shown later, altered the times of contact given. With regard to the effluents from the fine filters (which, it will be remembered, were in the first experiment practically identical), these showed a greater difference than before as is evident from the following figures :—

	Effluent from fine shallow filter.	Effluent from fine deep filter.
Ammoniacal Nitrogen	0·86	0·35
Nitric Nitrogen	2·80	3·25
Oxygen absorbed in 4 hours by paper-filtered effluent	0·90	0·60
Dissolved Oxygen taken up in 5 days	1·08	0·42

Some growth occurred on the fine filters, but it had much less effect upon the working of them than the growth had upon the working of the coarse filters, mainly because of the surface raking adopted.

So far as the coarse filters in Experiment II are concerned, the value of the comparison of the results was vitiated by the growth.

As regards the fine filter effluents, while both are good, that from the deep filter contained only about half the residual oxidizable matter as that from the shallow filter.

At the same time, the total amount of matter which was oxidized by the fine filter, 4 feet 10 inches deep, was little more than the total amount which was oxidized by the fine filter of half the depth.

As in Experiment I., all the filters continued sufficiently (or more than sufficiently) deep for the volume and strength of the liquor treated.

Salt Experiment 2.

151. At the conclusion of Experiment II another salt test was made in order to compare the curves obtained at this rate of flow (150 gallons per square yard) with those in Experiment I when the rate was 75 gallons per square yard.

The result is shewn in Diagram 3. Exactly the same amount of salt was used as before, viz. 7lbs. for each of the four filters, but as the flow of liquid was now doubled, the chlorine figures are correspondingly lower in each case.

Interpreting the curves in the same way as those of Diagram 2, we obtain the following figures :—

	Total quantity of salt washed out of filter in 23 hours.		Time taken for half the average quantity of salt to wash out.		Hour line upon which the centre of gravity of the curve figure falls.		Total area enclosed by the curve figure.	
	Weight in lbs.	Proportion to 7 lbs.	Hours.	Time ratio.	Hours.	Hour line ratio.	Cubic inches.	Area ratio.
Coarse shallow filter	4·2	0·60	2·27	1·00	3·8	1·00	6·98	1·00
Coarse deep filter	4·87	0·69	3·00	1·32	5·6	1·48	7·96	1·14
Fine shallow filter	4·17	0·60	3·70	1·63	5·8	1·53	6·28	0·90
Fine deep filter	4·36	0·62	6·30	2·77	9·4	2·48	6·98	1·00
Average	4·40	—	—	—	—	Average.	7·05	—

It will now be seen that in the two coarse filters, especially in the shallow one, the time taken for half the average quantity of salt to wash out was distinctly more than half what it was in Experiment I.

The effect of this is to bring the ratio figures for average time of contact in the two coarse filters much nearer together, viz., 1·0 : 1·32 as against 1·0 : 1·8 in Experiment I.

The same thing is seen but to a lesser extent with the fine filters, where the ratio figures are 1·63 : 2·77 as against 2·3 : 4·8.

The figures of analysis run parallel with this, there being less difference between the two coarse filter effluents than in Experiment I. Further, the rate of filtration is now sufficient to bring about a difference in the figures of analysis for the fine filter effluents.

Salt Experiment 3.

152. The appearance of the filters at this time led us to surmise that the difference between the ratio figures of Salt Experiment 1 and those of Salt Experiment 2 was to be ascribed to the development of *Cladothrix dichotoma* on the filtering material, especially on the coarse material.

In order to satisfy ourselves as to this, we cut down the flow on to the filters to the original rate of 75 gallons per square yard *immediately* after the conclusion of Salt Experiment 2, and proceeded to make a third Salt Experiment. Apart, therefore, from the difference in the state of the filters, the conditions of this Experiment were precisely the same as in Salt Experiment I.

DIAGRAM 3.

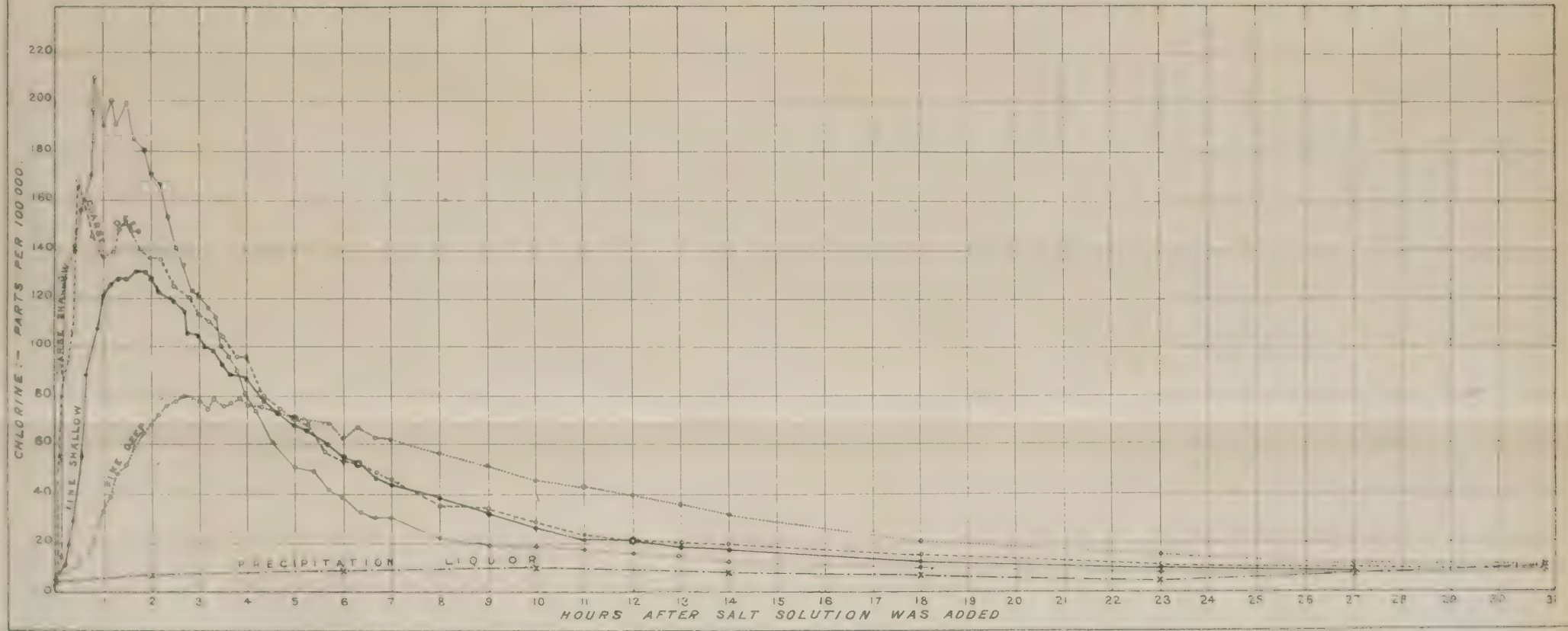
CURVES SHOWING THE RATES OF FILTRATION THROUGH THE TWO DEEP AND THE TWO SHALLOW FILTERS AT DORKING, AS TESTED QUANTITIVELY WITH A SOLUTION OF SALT.

Rate of filtration on all four filters - 150 gallons per square yard per 24 hours

Coarse shallow filter.
Coarse deep filter.
Fine shallow filter.
Fine deep filter.
Precipitation liquor.

(Each small circle or cross represents a chlorine estimation)

JANUARY 23RD 1908



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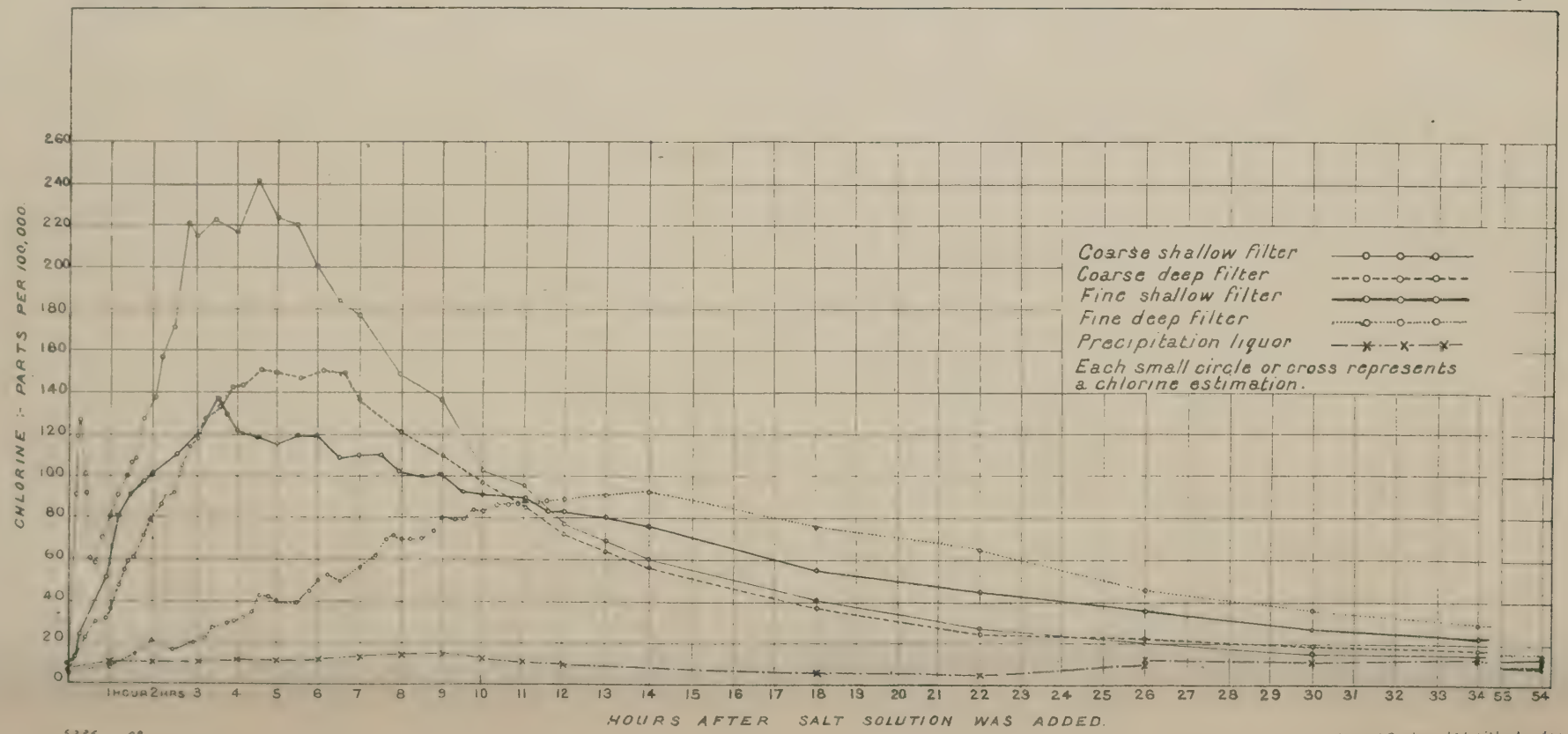
CURVES SHEWING THE RATES OF FILTRATION THROUGH THE TWO COARSE AND THE TWO FINE FILTERS AT DORKING, AS TESTED QUANTITIVELY WITH A SOLUTION OF SALT.

FEBRUARY 6TH 1908 — *Rate of filtration on all four filters = 75 gallons per square yard per 24 hours* — *DIAGRAM 4.*



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The result of Salt Experiment 3 is shewn on Diagram 4.

Again interpreting the curves as before we obtain the following figures :—

	Total quantity of salt washed out of filter in 46 hours.		Time taken for half the average quantity of salt to wash out.		Hour line upon which the centre of gravity of the curve figure falls.		Total area enclosed by the curve figure.	
	Weight in lbs.	Proportion to 7 lbs.	Hours.	Time ratio.	Hours.	Hour line ratio.	Cubic inches.	Area ratio.
Coarse shallow filter - -	6·97	0·99	6·3	1·00	8·8	1·00	22·26	1·00
Coarse deep filter - -	6·02	0·86	9·1	1·44	11·0	1·25	15·80	0·70
Fine shallow filter - -	6·87	0·98	10·2	1·62	13·9	1·58	18·20	0·82
Fine deep filter - - -	6·29	0·90	16·9	2·68	19·6	2·22	16·28	0·73
Average - -	6·54	—	—	—	—	—	18·13	—

The ratio figures for the time taken for half the average quantity of salt to wash out in this experiment were thus practically the same as in Salt Experiment 2, viz., 1·0: 1·32 and 1·0 : 1·44 for the two coarse filters and 1·63 : 2·77 and 1·62 : 2·68 for the two fine filters.

In other words, given a filter in the same state, the time of contact is inversely proportional to the rate of flow.

While, therefore, the growth interfered with the progress of the experiment as originally outlined, it has helped in a striking way to shew how close is the relationship between the time of contact and the quality of the effluent.

General Conclusions as to Depth of Percolating Filters.

153. Our Dorking experiments are not completed, and some points are not yet settled, but we think that the results obtained by other workers, together with those arrived at by us, bring out the following points fairly clearly :—

(1) That the deeper the filter the better the effluent. This holds both for fine and coarse material, assuming good distribution and aeration.

(2) For practical purposes and assuming good distribution, the same purification will be obtained from a given quantity of *coarse* material, whether it is arranged in the form of a deep or of a shallow percolating filter, if the volume of sewage liquor treated per cube yard be the same in each case.

Thus, a filter, 3 feet deep, worked at the rate of x gallons per square yard per day, would give similar results to a filter 6 feet deep, worked at the rate of 2 x gallons per square yard.

In the absence of clogging, the balance would be slightly in favour of the deep filter, because the greater the depth the more the errors of distribution would be neutralised. There must always be a limit of shallowness (say 3 feet), beyond which it would be unwise to go, for however good the distribution might be, if a coarse filter were constructed very shallow, a considerable proportion of the sewage would pass through by "short cuts."

(3) With regard to filters of *fine* material, if the liquid to be purified were absolutely free from suspended and colloidal solids, and if thorough aeration could be maintained, the statement just made for filters of coarse material might possibly hold good for filters of fine material also. In practice, however, these conditions can scarcely be maintained with large rates of flow, and we think that the greatest efficiency can be got out of a given quantity of *fine* material by arranging it in the form of a shallow filter rather than of a deep filter. But we are not in a position to make an exact quantitative statement as to the difference in efficiency of the two forms.

It is probable that for the treatment of a strong sewage liquor, the filter should not be quite so shallow as for a weak liquor, but the point has not been fully worked out.

(4) The extent of the purification effected by a percolating filter varies with the average length of time taken by the sewage liquor to pass through the filtering material, assuming that proper aeration of the filter is maintained.

Fowler, 22819.

Size of Material.

154. The size of the filtering material should depend, very largely, upon the amount and character of the suspended matter in the liquid to be filtered. Fine or medium-sized material undoubtedly produces the best effluents, so long as it is kept free from water-logging; but, unless the rate of filtration is slow, such filters soon clog if much suspended matter is contained in the liquid which is being filtered.

At Leeds, screened crude sewage, containing about 50 parts of suspended matter per 100,000, was treated upon filters of coarse material (over 4 inches in diameter) for at least eight or nine months; but it was found that when the same sewage was treated on a Ducat filter constructed of fine to medium clinker ($\frac{3}{8}$-inch to $\frac{5}{8}$-inch diameter), even at a slower rate, the filter became clogged in a month. The rates of filtration were as follows:—

Through the coarse filter ($11\frac{1}{2}$ feet deep)	-	52 gallons per cube yard per day.
Through the fine filter (10 feet deep)	-	45 gallons per cube yard per day.

In considering the question of size of filtering material, the character of the suspended matters in the sewage to be treated must also be taken into account.

No doubt the amount of fibre in the sewage was the chief cause of the very rapid choking of the fine Ducat filter at the Leeds works. As we have already mentioned, this filter became clogged within a month when screened sewage was put upon it, and with septic tank liquor, containing about 18 parts of suspended matter per 100,000, it completely choked after about two and a half years. The rate of filtration during the experiment with septic tank liquor was about 57 gallons per cube yard per day.

155. The following tables give particulars as to the size of filtering material in use at a number of places which we have had under observation.

Place.	Nature of Material.	Size of Material.	Depth of Material.	Amount of suspended matter in liquor treated. Parts per 100,000.		Calculated strength of liquor treated.	Method of Distribution.	Whether delivery of liquid is Continuous or Intermittent.	Rate of filtration in gallons.		Condition of Filters.	Remarks.
				Hourly samples in dry weather.	Average of chance Samples.				Per square yard per 24 hours.	Per cube yard per 24 hours.		
Treatment of Crude Sewage.												
Hendon	Clinker.	½ in. to ¾ in.	8 ft.	20	—	107	Tipping troughs.	Continuous.	125	40	Good after eight years.	Experimental Ducat filter. Fixed quantity treated daily.
Leeds	Clinker.	⅜ in. to ⅝ in.	10 ft.	—	85	173	Tipping troughs.	Continuous.	83	25	Clogged after one month.	Experimental Ducat filter. Fixed quantity treated daily.
Leeds	Clinker.	Over 4 ins.	11·5 ft.	—	53	123	Sprinkler.	Intermittent.	200	52	Choked with growth after 21 months.	Experimental Leeds filter. Fixed quantity treated daily.
Treatment of Settled Sewage.												
Clifton	Sand and cinders.	Very fine to coarse.	4 ft.	24	—	123	By fine material on surface.	Intermittent.	20·8	15·6	Good after fourteen years. Filters scraped every three months.	Six times the dry weather flow dealt with in storm times.
Dorking	Clinker.	2 ins. to 4 ins.	5 ft. 7 in.	—	9·4	80	Sprinkler.	Continuous.	223	120	Good after two years.	Experimental process. Fixed quantity treated daily.
Leeds	Clinker.	Over 1½ ins.	9 ft. 6 in.	—	12	69	Sprinkler.	Continuous.	200	63	Unchanged after one year.	Experimental process. Fixed quantity treated daily.
Little Drayton	Granite.	⅜ in. to ¾ in.	7 ft. 6 in.	20	—	165	Tipping troughs.	Continuous.	48	19·5	Upper part of material requires washing after three or four years.	
Treatment of Septic Tank Liquor.												
Accrington	Coke or clinker.	2 ins. to 4 ins.	9 ft. 3 in. to 7 ft.	—	—	92	Sprinkler.	Continuous.	425	140	Good after four to eight years.	Twice the dry weather flow dealt with.
Birmingham	Broken brick, granite or slag	Medium to coarse.	—	—	7·3	159	Nozzles.	Continuous.	165	82	Good after three or four years.	
Caterham	Coke.	⅛ in. to 3 ins.	5 ft.	12·6	—	161	Perforated pipes.	Intermittent.	51	30·7	Good after ten years.	Fixed quantity treated daily.
Dorking	Clinker.	2 ins. to 4 ins.	5 ft. 7 in.	—	9·5	82	Sprinkler.	Continuous.	223	120	Good after two years.	Experimental process. Fixed quantity treated daily.
Guildford	Coke.	Over 2 ins.	6 ft.	16	—	125	Sprinkler.	Intermittent.	102	51	Good after nine months.	Experimental process. Fixed quantity treated daily.

Place.	Nature of Material.	Size of Material.	Depth of Material.	Amount of suspended matter in liquor treated. Parts per 100,000.		Calculated strength of liquor treated.	Method of Distribution.	Whether delivery of liquid is Continuous or Intermittent.	Rate of filtration in gallons.		Condition of Filters.	Remarks.
				Hourly samples in dry weather.	Average of chance samples.				Per square yard per 24 hours.	Per cube yard per 24 hours.		
Hanley	Saggars.	¼ in. to ½ in.	5 ft.	—	7·6	54 ?	Sprinkler.	Intermittent.	206	124	Upper part of material requires washing after four or five years.	Six times the dry weather flow dealt with.
Huddersfield	Clinker.	1½ ins. to 4 ins.	7 ft.	—	13	77	Sprinkler.	Continuous.	360	155	Good after one year.	Experimental process. Fixed quantity treated daily.
Leeds	Coke.	Over 1½ ins.	9 ft. 6 in.	—	18	76	Sprinkler.	Continuous.	200	63	Good after four years.	Experimental process. Fixed quantity treated daily.
Prestolee	Cinders and gravel.	Fine to coarse.	5 ft.	3·2	—	22	By fine material on surface.	Intermittent.	92	55	Good after eight years. Surface of material is scraped once a month.	Whole of storm water dealt with.
Rochdale	Coke.	1½ ins. to 4 ins.	9 ft.	5·3	—	83	Sprinkler.	Continuous.	424	141	Good after seven years.	Experimental process. Fixed quantity treated daily.
York	Clinker.	1½ ins. to 3½ ins.	6 ft. 6 in.	5·3	—	58	Sprinkler.	Continuous.	360	150	Good after six years.	Fixed quantity treated daily.
Treatment of Precipitation Liquor.												
Chorley	Sand, polarite and gravel.	Very fine to coarse.	3 ft.	3	—	50	Flush tank.	Intermittent.	525	525	Good after twelve years. Beds washed by upward flow about once a week.	Rather more than dry weather flow dealt with.
Dorking	Clinker.	2 ins. to 4 ins.	5 ft. 7 in.	—	5·5	56	Sprinkler.	Continuous.	392	211	Good after two and a half years.	Experimental process. Fixed quantity treated daily.
Horfield	Clinker.	3 ins.	7 ft. 5 in.	2·5	—	36	Stoddart trays.	Continuous.	478	190	Good after five years.	Whole of storm water dealt with.
Leeds	Coke.	Over 3 ins.	6 ft.	—	6·3	52	Sprinkler.	Intermittent.	100	50	Unchanged after nine months.	During storms rate of filtration was largely increased.
Normanton	Sand, polarite and gravel.	Very fine to coarse.	3 ft. 3 in.	14·0	—	112	By fine material on surface.	Intermittent.	106	98	Good after ten years. Filters are brushed over after each application of tank liquor and washed by upward flow every three months.	Fixed quantity treated daily.
Withnell	Sand, polarite and gravel.	Very fine to coarse.	3 ft.	2·0	—	81	Flush tank.	Intermittent.	68	68	Good after seven and eleven years. Beds raked over every week and washed by upward flow two or three times a year.	Some storm water dealt with.

NOTE. The calculated "strengths" of the above sewage liquors are only to be taken as approximate and this more especially in the case of the sewages, etc., from Birmingham, Hanley, Huddersfield and Leeds; at these places the 4 hours "oxygen absorbed" figure is obtained with *weak* permanganate and we have only been able to make an *average* allowance for this.

Methods of Feeding Percolating Filters.

156. The main object to be aimed at in feeding a percolating filter is to deliver the liquid uniformly over the whole area in such a way that each particle of material receives an equal quantity of liquor.

A distributor should comply with the following requirements :—

It should distribute the liquid uniformly over the whole filtering area ;

Its working should not be affected by atmospheric conditions, such as wind, frost, etc. ;

It should be capable of adjusting itself to large variations in the flow, *i.e.*, it should deliver equally well the small flow of night sewage and the increased flow during storms.

The distribution should not be liable to be affected by the stoppage of small holes by the suspended matter of the sewage or tank liquor ;

It should be easy to clean ;

The points at which the moving parts of the distributor are in contact with the stationary parts, or with the parts which have a different motion, should, as far as possible, be separated from the liquid which is being distributed.

In selecting a distributor, it would be necessary to consider the head of water, or other power required to work it, and, of course, the question of cost.

157. At the places which we have had under observation we have had experience of six forms of distribution. We have made no comparative tests of the various forms, and we therefore only propose to offer certain general observations in regard to them.

The forms of which we have had experience may be classified as follows :—

(1) A sprinkler which moves, either automatically or by applied power, dropping or spraying the liquid as it rotates or travels backwards and forwards over an area of filtering material ;

(2) A stationary form of distributor, in which the liquid to be distributed is carried over the filter area by means of pipes, and forced under head of water through a large number of small orifices, so that it is broken up into fine jets ;

(3) A form of distribution in which definite volumes of liquid are automatically delivered in flushes ;

(4) Distribution by means of a very fine material laid on the surface of the filter, the liquid being by this means spread over the whole, or the greater part, of the filtering area ;

(5) Dripping trays, a stationary form of distributor, invented by Mr. F. Wallis-Stoddart, by which the sewage liquid is carried over a filtering area in perforated trays of corrugated iron, from which it falls upon the filtering material in a succession of drips ;

(6) Tipping troughs. A stationary form of distributor, consisting of troughs balanced on pivots in such a way that, when filled with liquid, they tip and then return to their original position.

Type No. 1.—As regards moving sprinklers we may make the following observations :—

(*a*) Unless driven by applied power, which must obviously increase the cost of distribution considerably, they are seriously affected in their distribution by wind, and by severe frost and snow. In the case of light revolving sprinklers, they are not infrequently brought to a standstill by the wind. Where the filter is a small one, this disadvantage may to a considerable extent be overcome by building wind screens round the filter or by raising the retaining walls, but on a large works we should think that this would be impracticable, and with large filters not very effective.

(*b*) Automatic revolving sprinklers, when used intermittently (*i.e.*, when fed from a flushing tank), are capable of adjusting themselves to large variations of flow, but when used continuously, without a flushing tank, their rates of working can only be varied within somewhat narrow limits.

(*c*) The forms of sprinkler in which the tank liquor is delivered to the bed through a number of small holes need a considerable amount of attention. The arms require to be brushed out at least once a day, unless the tank liquor happens to be exceptionally free from suspended matter, or not likely to produce fungoid growths.

Type No. 2.—Distribution by means of perforated pipes or nozzles laid over a filtering area is almost always rather unequal, and this would be a disadvantage, except in the case of fairly deep beds constructed of fine or medium material, or deep beds (say, eight feet or more) of coarse material. This method of distribution, moreover, needs a considerable head of liquid for proper working, and also requires constant attention to keep the pipes and distributing holes clean and free.

At Birmingham, where the nozzle form of distributor is in use on a large scale, for each acre and a half of filter one man is constantly employed night and day in cleaning the nozzles. The constant walking over the surface of a filter is a distinct drawback, but assuming that the occupation is not dangerous to the workman, we think that this method of distribution will, in many cases, be found efficient and cheap.

Watson, 25008. Mr. Watson, of Birmingham, has made a careful comparison of various methods of distribution, and it will be seen from his evidence that, on account of cost, he prefers the system of spraying nozzles to other forms of distribution.

Type No. 3.—This method of distribution would only be suitable in a limited number of cases. Where the distribution is by means of flushes, the upper part of the bed should be made of very fine material, such as sand. With this type of filter the surface has to be constantly washed and cleaned, and it is therefore important that the tank liquor should be comparatively free from suspended matter. Owing to the difficulty of obtaining from a strong sewage a tank liquor containing only a small quantity of suspended and colloidal matter, this type of distribution is not well adapted for cases in which strong sewage has to be treated.

Type No. 4.—The distribution obtained by spreading the liquid to be treated over a filtering area covered with a layer of very fine material, such as soil, sand, or clinker dust, etc., does well either for strong or weak sewages; but unless the fine material on the surface of the bed is kept closely packed, there is danger, when the bed is first brought into use, of the liquid passing too rapidly to the drains. It would seem advisable, therefore, where this method of distribution is adopted, that the filter should be constructed throughout of fine to medium material, except round the drains.

Types Nos. 5 and 6.—Tipping troughs and dripping trays are, in our opinion, more suitable for small than for large installations. They can adapt themselves to large variations of flow, and in the case of small or medium-sized works, where constant supervision is not available, this is a great advantage. We may add that these trays are better suited for the distribution of a large volume of weak liquid than a small volume of strong liquid.

The distribution is seldom perfect by either of these forms of distributor, and consequently it is advisable to have deep beds where they are adopted. Further, owing to the fact that the delivery of liquid in both cases is more or less constant, medium-sized or coarse material should be used, to prevent ponding.

A certain amount of supervision is necessary as a tray may become blocked or a trough may fail to tip. The trays would require to be looked at about once a day, we think, and tipping troughs about twice a day ; but, beyond this, little attention is required. The distribution in both these forms is divided up into a number of units, and it is very unlikely that more than one or two units would get out of order at a time and that the distribution would be bad over a whole filtering area.

That tipping troughs are liable to be completely put out of action by severe frost we have seen exemplified at Little Drayton, and although we have had no experience of the same kind with regard to the trays, we should think that these were also liable to be affected by severe frost, though in their case distribution would never cease altogether.

Risk of Nuisance.

158. All forms of distribution on percolating filters are liable to give rise to nuisance from smell, if a strongly smelling liquor has to be dealt with. In the case of trays or tipping troughs the smell is confined more or less to the immediate vicinity of the filter, and it may be largely done away with at small works by providing an inexpensive form of cover for the filter. The nozzle form of distributor is naturally the most liable to give rise to smell, but moving sprinklers are almost equally bad in this respect.

Some Observations on the Most Convenient Superficial Area for a Percolating Filter.

159. So long as due regard is had for economy, the main consideration in laying out an area of percolating filters is to arrange the area so that portions of it may be put out of work without interfering with the general working of the plant.

If, for instance, at a small sewage works the whole of the sewage was treated upon one percolating filter fed by one sprinkler, any stoppage of that sprinkler would, unless land or some other means of disposal were available, result in the temporary discharge of a large quantity of unpurified sewage into the watercourse.

Experience has not shown that it is **necessary* for purposes of aeration to expose the sides of a percolating filter to the atmosphere, in order to obtain good results, and there would seem to be no reason, beyond engineering considerations, such as configuration of site, etc., for splitting up an area of percolating filter into units, provided that any part of that area could be cut out and rested, when necessary, without interfering with the general purification. The particular arrangement of the works would therefore depend very largely upon the form of distributor employed.

The size of a revolving distributor, for instance, has economic limits, and if this method of distribution were adopted the filter area would have to be split up into units corresponding with these limits.

The method of distribution by flushing fixed quantities of sewage liquid over percolating filters, constructed with a surface layer of very fine material, necessitates that the filter units should be small. Otherwise the flush of liquor cannot be made to spread evenly over the whole surface of the filter. This kind of filter has also to be washed or scraped at short intervals of time, and allowance must consequently be made for this.

Distribution by a power-driven distributor moving over a rectangular bed also has its limits, for, although the working of such a distributor can be regulated so as to rest the ends of a rectangular bed, it would appear to be difficult to feed the

* Some experiments which we carried out at Hendon, with the Ducat filter, indicated that open sides may be of advantage for the treatment of crude-screened domestic sewage, on a rather fine percolating filter Other work has prevented us from completing these experiments.

ends while resting the middle portion of the area. Further, if the bed were *very* long, large quantities of liquor would have to be fed on to each portion of filter at long intervals of time, instead of small quantities at short intervals.

With stationary distribution by means of nozzles, perforated pipes, dripping trays or tipping troughs, there would appear *in principle* to be no limit of size, for portions of a large area fed by such means could be cut out or brought in at will, without interfering with the general purification."

Where moving sprinklers are used, it would be cheaper to limit the number of units to a minimum, but the whole filtering area should comprise not less than three units so as to allow of cleaning and resting.

In the arrangement of a percolating filter area at a very large works, other considerations would have to be taken into account, such, for example, as the size of feed pipes, and the distance which the workmen would have to walk upon the material in order to get at different parts of the filter.

In regard to this question we may refer, particularly, to the evidence of Dr. Fowler, 23020, Mr. Watson, 25015, Dr. Reid, 24432 (131), and Messrs. Willcox and Raikes, 26114.

Construction of the Base of Percolating Filters.

160. In a percolating filter of *coarse* material, large quantities of suspended matter quickly work their way through the filter. If this suspended matter is not allowed to come away with the effluent, the bottom layers of the filter will become choked, and this will interfere with the working of the filter, not only for mechanical reasons, but also by preventing aeration. In such a filter, therefore, it is necessary to make provision for the free passage of suspended matter through the material and into the effluent drains, so that it can be completely carried away from the bed and dealt with subsequently.

In a percolating filter of *medium* or *fine* material, where the bulk of the suspended matter is caught and held in the upper part of the filter, the free base would not seem to be an absolute necessity. If, however, the suspended matter is not removed from the upper part of the filter by washing or riddling, it will eventually find its way to the bottom of the filter.

In any case the working of a percolating filter depends primarily upon the free passage of air through the bed, and, for this reason, we should say, in general, that it is advisable to construct the lower portions of all percolating filter, fine as well as coarse, as open as possible

If, in a filter constructed of medium or fine material, a bottom layer of large pieces is relied upon wholly for the aeration of the bed and for the free passage of liquid to the drains, it is obvious that great care must be taken in selecting this coarse material. Any serious disintegration at the bottom of the filter would result in parts of the filter becoming water-logged.

Choking of Percolating Filters.

161. Unless the material is coarse enough to allow the free passage of suspended matter, percolating filters are liable to become choked. Within ordinary practical limits, the rate of choking would depend upon the actual quantity of suspended matter delivered to the surface of the bed. At Leeds, for instance, it was found that carefully screened sewage, containing 80 parts of suspended matter per 100,000, when put upon a percolating filter composed of clinker $\frac{3}{4}$ inch to $\frac{5}{8}$ inch diameter, ten feet deep, had the effect of completely choking the surface within a month, notwithstanding the fact that the rate of filtration never exceeded 25 gallons per cube yard per day. When, however, septic tank liquor containing only about 18 parts of suspended matter per 100,000 was substituted for the screened sewage, the same filter gave good results without clogging for two years, though the rate of filtration was doubled. At the end of that time it was necessary to rest the bed and fork the surface, and after three years, owing to internal clogging, it became necessary to stop the experiment.

If a clogged filter of medium or fairly coarse material is rested, the suspended matter which causes the choking becomes granular, and can eventually be washed out of the filter. To some extent this applies also to a filter composed of very fine material, but in that case by far the greater proportion of the suspended matter remains on or near the surface and can only be got rid of by removing the clogged material and washing it, or exposing it for some time to the air, and eventually riddling it dry. When coarse material is used in a percolating filter there is apparently little danger of the filter becoming clogged, unless the sewage contains much fibre or is liable to give rise to fungoid growths, or unless serious disintegration of the material takes place. We have had no experience of such a filter becoming clogged with suspended matter when dealing with domestic sewage. At Accrington, coarse percolating filters have been in use for the treatment of septic tank liquor for eight years, and have not clogged. At Horfield, a coarse percolating filter treating precipitation liquor and fed by means of dripping trays ran uninterruptedly until it was dismantled after five years' work. At York, coarse filters have been in use for the treatment of septic tank liquor, without interruption, for four years. There are, in fact, a number of such instances. This kind of filter, however, seems to be liable to choke as the result of surface growths (*see* page 97). Where there is much fibre in the liquid to be treated (and the same thing would no doubt apply to grease and hops, etc.), percolating filters of even very coarse material may choke up. At Leeds, a percolating bed which was constructed of coarse coke, showed signs of becoming choked after having received septic tank liquor for eight and a half months. The primary cause of the choking was, we think, the fibrous character of the suspended matter, but there was a considerable development of growth on the surface of this bed at the same time.

The choking of a percolating filter constructed of medium-sized material (say $\frac{1}{4}$ inch to $\frac{3}{4}$-inch diameter) takes place at or near the surface, the material below this remaining fairly clean. We have seen examples of this at Salford, Hanley, Chesterfield, Birmingham, and Hendon, though at none of these places was the choking serious. At Market Drayton and Leeds, however, the upper portions of the filters had to be washed or renewed after about three years' work. The following table shows the amount of suspended matter, the rate of filtration, and the condition of the filters at the above places :—

Place.	Nature of material.	Size of material.	Amount of suspended matter in tank liquor treated. Parts per 100,000.	Rate of filtration in gallons.		Condition of filters.
				Per square yard per 24 hours.	Per cube yard per 24 hours.	
Leeds - - -	Clinker	$\frac{3}{16}$ in. to $\frac{5}{8}$ in.	80	83	25	Clogged after 1 month.
Market Drayton -	Granite	$\frac{3}{8}$ „ $\frac{3}{4}$ „	25	50	20	Upper part of material required washing after about 4 years' work.
Hendon - -	Clinker	$\frac{1}{2}$ „ $\frac{3}{4}$ „	20	125	40	Good after 8 years.
Leeds - - -	„	$\frac{3}{8}$ „ $\frac{5}{8}$ „	18	200	57	Bed seriously clogged after $2\frac{1}{2}$ years.
Chesterfield -	„	$\frac{1}{4}$ „ 2 „	12	90*	40*	Good after 6 years.
Birmingham -	Broken brick and granite	$\frac{1}{2}$ „ 3 „	8	155	77	Good after 3 or 4 years.
Hanley - -	Saggars	$\frac{1}{4}$ „ $\frac{1}{2}$ „	5	206	124	Upper part of material would probably require washing every 4 or 5 years.
Salford - -	Clinker	$\frac{3}{16}$ „ $\frac{3}{4}$ „	3	318	151	Good after 5 years. Top foot of material renewed on 10 per cent of area after 3 or 4 years, and rest of area dug over.

* Dry-weather rates of flow. In storm times these filters take four times the dry-weather flow.

We have had no experience of the washing of percolating-filter material on a practical scale ; but, from the evidence given as to the cost of washing contact-bed material, we should estimate that the cost would be approximately 1s. 6d. to 2s. 6d. per cube yard, if done by machinery on a large scale, and from 2s. 6d. upwards per cube yard, if done by hand on a small scale.

Growths on Percolating Filters

162. At a number of places thick, gelatinous, fungoid growths have at certain periods of the year (usually in the winter or early spring) developed upon the surfaces of percolating filters to such an extent as to cause serious ponding and consequent deterioration of the filter effluent. On the other hand, at other places, where apparently similar growths are present in small quantities on the surface of the material, they do not increase to any marked extent, and no ponding arises from this cause. Tables I. and II. give examples of each kind of place.

TABLE I.—Places where growths upon the surface of percolating filters have caused trouble.

Place.	Material used in filter.	Size of Material.	Mode of Distribution.	Whether delivery of liquor is continuous or intermittent.	Kind of liquor treated.	Amount of suspended matter in the liquor. Parts per 100,000.	Remarks as to growths.
Dorking	Clinker.	Coarse to medium.	Sprinkler.	Continuous.	Precipitation liquor.	8	The filters were started on Nov. 16th, 1905, and a pinkish-yellow filamentous growth made its appearance a fortnight later. This flourished until May of the following year, when it died away. During the last five weeks of this period the effluent from the filter was bad.
	Clinker.	Coarse to medium.	Sprinkler.	Continuous.	Septic tank liquor.	8·1	In both these cases, a grey-brown amorphous growth made its appearance at the same time as the growth on the filter treating precipitation liquor, but it did not flourish to such an extent, and never interfered seriously with the working of the filter. It practically disappeared during the early part of May.
	Clinker.	Coarse to medium.	Sprinkler.	Continuous.	Settled sewage.	10·5	
Guildford	Coke.	Coarse.	Sprinkler.	Intermittent.	Septic tank liquor.	15·9	This experimental filter was started in August, 1906. A grey-brown filamentous growth appeared on surface of the coke during the last months of that year, and increased seriously after frosty weather in January, 1907. The growth began to die away in the early summer.
Kingston	Clinker.	Coarse.	Sprinkler.	Continuous.	Precipitation liquor.	1·5	A short fibred grey growth appears annually on the surface of the filter, commencing about November and dying off in March. In the winter months it forms an almost impervious mat on the surface of the filter, the effluent becoming bad in consequence.
Leeds	Clinker.	Coarse.	Sprinkler.	Continuous.	Septic tank liquor.	18	The filter was started on March 9th, 1899, and ran till May 8th of the same year, when the effluent deteriorated in quality owing to the bed having become covered with an abundant gelatinous mycelium-like growth (pylobolus). On July 10th some very coarse coke was put on the surface of the bed, and from that time it was found possible to run for periods of about three months before the surface choked with the growth. When this occurred the coke was simply forked over.
	Clinker (6 inches of gas coke on surface).	Very coarse.	Sprinkler.	Continuous.	Crude sewage.	5·3	The filter was started on December 23rd, 1901. Almost from the first trouble arose from the thick pylobolus growth forming on the surface; this closed the interstices of the gas coke, and so gave rise to ponding and bad distribution. On March 1st, 1902, the coke was removed, and the bed from that time gave good results until the winter of 1902–3, when choking again occurred.

TABLE II.—Places where percolating filters have been run without any trouble from growths.

Place.	Material used in filter.	Size of material.	Mode of distribution.	Whether delivery of liquor is continuous or intermittent.	Kind of liquor treated.	Amount of suspended matter in the liquor. Parts per 100,000.	Remarks as to growths.
Accrington	Clinker	Coarse	Sprinkler	Continuous	Septic tank liquor	19	Only very slight signs of growth on the surface of the material after six years' work.
Birmingham	Clinker	Coarse to fine	Nozzles	Intermittent	Septic tank liquor	7·3	Only slight signs of growth after a year.
	Broken brick	Coarse to fine	Nozzles or sprinkler	Continuous or intermittent	Septic tank liquor	7·3	Only slight signs of growth after a year.
	Broken granite	Coarse to fine	Nozzles or sprinkler	Continuous or intermittent	Septic tank liquor	7·3	Only slight signs of growth after a year
Chorley	Sand	Very fine	Flushing tank	Intermittent	Precipitation liquor	2	No growth after eight years. Filters washed every week.
Hanley	Saggars	Fine	Sprinkler	Intermittent	Septic tank liquor	4·4	No growth after four years
Horfield	Clinker	Coarse	Dripping trays	Continuous	Precipitation liquor	2·5	No growth after four years
Huddersfield	Clinker	Coarse to medium	Sprinkler	Continuous	Septic tank liquor Precipitation liquor Settled sewage	13·1 7·0	No serious signs of growth on any beds.
York	Clinker slag, coke, broken brick	Coarse to medium	Sprinkler	Continuous	Septic tank liquor	5·3	No growth after four years.

163. So far as we are aware, such growths have not been made the subject of systematic study in connection with sewage disposal, and little appears to be known as to the conditions under which they flourish. As will be seen from Table I., however, a pylobolus growth appeared upon the surface of a percolating filter treating septic tank liquor at the Leeds sewage works. In their Report on Experiments in Sewage Disposal, City of Leeds, 1905, p. 140, Colonel Harding and Mr. Harrison make the following remarks on the subject :—

"A few words must be added in regard to the difficulty of the fungoid "growths which arise in dealing with Leeds sewage on percolating filters, and "which, with any but very coarse material, soon choke the air spaces, and cause "the sewage to pond on the surface. The growths were less with partly settled "sewage than with the crude sewage and as in other cases they did not spread far "down into the filter, not more than from 6 to 12 inches at the most, it would "seem that light is required for their development."

"On the other hand, the holes in the sprinkler tubes were constantly choked "with these growths, so that they required to be daily cleansed; but it is more "likely that this was due to the fungus which forms in the open channels leading "to the sprinkler being washed forward into the tubes than to the growths arising "in the tubes themselves. It is quite possible that sewage thoroughly well settled "may give rise to fungoid growths, the detritus from which may cause suspended "matters to appear in a filtrate."

"The question of these growths and the circumstances which favour their "devolopment is one that should be further investigated."

164. As the use of percolating filters is likely to spread in the future, we are impressed with the need for practical experiments which have for their object either the prevention or the destruction of the growths on the surfaces of such filters.

That growths of this kind can be destroyed is shown by an experiment (suggested by Dr. Houston and Mr. Colin Frye) recently carried out on a small scale upon the surface of one of our experimental filters at Dorking. In March, 1907, the surface of this filter (which at that time treated septic tank liquor) was covered with a considerable layer of gelatinous growth, sufficient to cause local ponding in the tracks of the sprinkler jets. On March 16th the filter was rested for twenty-four hours in dry weather, and at the end of that time the surface was divided up into eight equal segments (1.6 square yards each), and seven of these were treated with the following reagents, the eighth segment being left untouched :—

(1) Powdered quicklime.
(2) Bleaching powder.
(3) A 20 per cent. solution of "Chloros."
(4) A 20 per cent. solution of copper sulphate
(5) A 20 per cent. solution of ferrous sulphate.
(6) A 20 per cent. solution of caustic soda.
(7) A 20 per cent. solution of sulphuric acid.

In the case of (1) and (2), sufficient of the dry solid was used to cover the surface with a fine layer of powder, while in the case of the other five segments one litre of each solution was applied to the material with a brush, the filter being then left resting for a further period of twenty-four hours.

At the end of this time, the segment which had been treated with caustic soda had undergone a distinct change in appearance, the clinker being perfectly clean on the upper side, though the under side was still covered with a slimy layer of half-dissolved growth. Of the other six segments, none showed any marked destruction of the growth, but the copper and iron sulphates had stained their segments green and rusty brown respectively. The filter was started again at 3 p.m. on the same day. A very large quantity of coarse brown solid matter (20 to 30 parts per 100,000) came away in the filter effluent during the first hour, but the quantity gradually decreased to about 6

parts per 100,000 after 24 hours. The samples taken during the first hour went putrid upon incubation, this being no doubt chiefly due to the outflush of solids, but otherwise the working of the filter was not seriously upset, though the nitric nitrogen in the effluent fell from 2 parts to 1 part per 100,000 for some days, eventually rising again to 2 parts on March 25th.

On April 22nd there were again signs of local ponding on the surface of the filter, but the growth on that segment which had been treated with caustic soda was considerably less than on the other segments. It was therefore thought desirable to try the application of a 20 per cent. solution of caustic soda to the whole surface of the filter. This was accordingly done, two gallons of the solution being used for the purpose. The procedure otherwise, *i.e.*, as regards the resting of the filter, was exactly the same as in the first experiment.

On the following morning the surface of the clinker was covered with a white deposit of sodium carbonate, and, on re-starting the filters shortly afterwards, a great quantity of dark brown solid matter came away in the effluent. Samples of effluent drawn for the first two hours readily putrified upon incubation. After twenty-four hours the effluent when freed from solid matter was normal, but a large quantity of suspended solids continued to come away with the effluent for about a week.

As in the case of the first experiment, the working of the filter, apart from the flush-out of solids, was not seriously upset, and after the first two hours from the restart there was no fall in the figure for oxidised nitrogen.

The exposed surface of the clinker was completely cleaned by this application of caustic soda solution, though a considerable amount of growth still adhered to the under side of the larger pieces of material. All ponding, however, disappeared, and no further growth of any consequence made its appearance for some months. The cost of the treatment, including labour, was 2½d. per square yard, but this would no doubt be materially reduced when carried out on a large scale.

Probably three such applications of 20 per cent. caustic soda would be necessary to keep the growth down during the winter or early spring months on the filter at Dorking.

165. Generally speaking growths do not appear to flourish on the surface of percolating filters constructed of fine material, but whether this is due to the size of the material or to the fact that filters of fine material are usually fed intermittently, we cannot say. Colonel Harding and Mr. Harrison, in an experiment at Leeds, found that they could keep down growth on a coarse-grained filter by substituting an intermittent sprinkler for a continuous one.

Our experiments seem to indicate that growths flourish most on filters treating precipitation liquor. This suggests that the use of chemicals (especially soluble sulphates) may influence their development, but, on the other hand, precipitation liquor usually contains considerably less suspended matter than other tank liquors, and a larger volume of it is for this reason generally treated per cube yard.

As regards the growths in channels along which effluents flow, they seem to require, for their development, an aerated but still unpurified sewage liquid, and it is possibly for this reason that they are generally more abundant in channels conveying dilute sewage liquids than in channels conveying strong sewage liquids, especially if the suspended matter is removed.

Some Observations as to the Relative Cost of Contact Beds and Percolating Filters.

166. On pages 36–43 of this Report we have made some observations on the relative cost and efficiency of preliminary processes for the removal of suspended matters from sewage, and we propose here to make a similar comparison between the two types of artificial filter usually adopted for the further purification of the sewage, and commonly known as "contact beds" and "percolating filters." As in the case of the preliminary processes, the cost of filters necessarily varies with local conditions, and no figures can be given which would be generally applicable. Following the plan adopted in the case of the preliminary processes, however, we propose to compare the two types of filters in a hypothetical case in which we assume :—

That ample fall is available ;

That the sewage is of a normal domestic character and of average strength ; *i.e.*, a sewage which would require about 100 parts of oxygen,* by weight, for the oxidation of the organic matter contained in 100,000 parts of sewage ;

That the flow of sewage is 1,000,000 gallons per day in dry weather ;

That in times of storm twice the dry weather flow is passed through the filters.

For the purpose of this comparison, we assume that the sewage has been subjected to preliminary tank treatment for the removal of suspended matter, and that in each case a satisfactory final effluent is to be produced.

We have not considered it necessary to compare the costs of all the modifications of percolating filters and contact beds of which there are examples, but have confined our comparion to percolating filters of coarse material, nine feet deep, and contact beds composed, for the most part, of medium-sized material, but having rather coarse material round the drains and a layer of fine material on the surface.

Mr. G. B. Kershaw, our Engineer, has prepared detailed drawings of the two kinds of filter, when used in conjunction with each of five different tank treatments, and, from these drawings has taken out quantities. The filters are all assumed to have been constructed on the same basis. The concrete flooring for the percolating filters, for example, has been assumed to be practically the same thickness as the concrete flooring for the contact beds, and the cost of concrete has been taken at a fixed price throughout. The class of work has been taken to be of the best kind, the walls and the floors of the contact beds, for instance, being made thoroughly water-tight by rendering with cement. It is due mainly to this fact that our estimates for the cost of contact beds are high. At some places a cheaper form of construction than we have assumed has been adopted. At Burnley, for instance, no concrete was used, and the beds, which are 3 feet in depth, cost approximately £1,300 per acre. At Manchester, where concrete was used, but where no rendering was done, the cost amounted to between £2,500 and £3,000 per acre for beds of the same depth. In Mr. Kershaw's estimates, the cost is about £5,700 per acre.

167. The working capacities of both contact beds and percolating filters depend to a large extent upon the strength of the liquor passed on to them and the amount of suspended matter contained in such liquor. In the following table, the strength of the tank liquor which is produced from our hypothetical sewage by each of the five preliminary processes, the amount of suspended matter in the liquor in each case, and the rate of filtration in each type of filter, are given :—

* This would generally be equivalent to about 10 or 12 parts per 100,000 of "oxygen absorbed" in four hours from strong permanganate.

Preliminary Process.	Strength of Tank Liquor, stated in parts by weight of oxygen per 100,000 required for the oxidation of the organic matter.	Amount of Suspended Matter in Tank Liquor (parts per 100,000).	*Contact Beds.		*Percolating Filters.	
			Rate of Filtration per cube yard per day (dry weather flow).	Cubic Content of Filtering Material required to treat one million gallons per day (dry weather flow).	Rate of Filtration per cube yard per day (dry weather flow).	Cubic Content of Filtering Material required to treat one million gallons per day. (dry weather flow).
			Gallons.	Cubic yards.	Gallons.	Cubic yards.
Quiescent settlement, with chemicals.†	50	1 to 4	140	7,143	175	5,714
Continuous flow settlement, with chemicals.	60	3 to 6	85	11,765	150	6,666
Quiescent settlement, without chemicals.	70	5 to 8	55	18,182	100–125	8,928
Continuous flow settlement, without chemicals.	80	10 to 15	40	25,000	75–100	11,494
Septic tanks - - -	80	10 to 15	40	25,000	75–100	11,494

Initial Cost of Contact Beds and Percolating Filters.

168. The following table gives Mr. Kershaw's estimates of the constructional cost of percolating filters and contact beds required to treat a dry weather flow of 1,000,000 gallons per day of our hypothetical sewage on the above basis. The estimates include the sum of 15 per cent. for engineering and contingencies.

Preliminary Process.	Contact Beds.	Percolating Filters.
	£	£
Quiescent settlement, with chemicals - - - -	8,527	7,376
Continuous flow settlement, with chemicals - - -	14,898	8,836
Quiescent settlement, without chemicals - - - -	22,080	10,596
Continuous flow settlement, without chemicals - -	26,846	13,824
Septic tanks - - - - - - - - - -	26,846	13,824

The principal items in the estimates for both kinds of filters are: filtering medium, concrete in walls and floors and rendering; and excavation in the case of the contact beds. The figures for these items are given in the following tables:—

Contact Beds.

Preliminary Process.	Cost of Filtering Medium.	Cost of Concrete in Floors and Walls.	Cost of Rendering.	Cost of Excavation.
	£	£	£	£
Quiescent settlement, with chemicals - -	3,777	2,545	675	Single set of beds; very little excavation. ‡
Continuous flow settlement, with chemicals -	3,545	3,882	1,350	885
Quiescent settlement, without chemicals - -	5,431	5,461	1,650	1,204
Continuous flow settlement, without chemicals.	7,231	7,038	2,171	1,722
Septic tanks - - - - - - -	7,231	7,038	2,171	1,722

* The quality of the effluents produced by the ten plants would, of necessity, not be identical. The average quality as expressed in terms of oxidizability of effluent (see paragraphs 178 and 179) would be something like +2 for the double contact effluents and—2 for the percolation effluents.

† In the case of quiescent settlement with chemicals, we have allowed for single contact only; in the other cases, for double contact.

‡ We have assumed in our hypothetical case that the primary beds are practically out of ground, and that excavation is required only in the case of the secondary beds.

Percolating Filters.

Preliminary Process.	Cost of Filtering Medium.	Cost of Concrete in Floors and Walls.	Cost of Rendering.
	£	£	£
Quiescent settlement, with chemicals	1,951	2,617	269
Continuous flow settlement, with chemical	2,431	3,271	336
Quiescent settlement, without chemicals	4,375	5,889	605
Continuous flow settlement, without chemicals	5,833	7,851	806
Septic tanks	5,833	7,851	806

Effluent Settling Tank.

169. In our hypothetical case, a tank is provided for the settlement of the effluent from the contact beds, as well as from the percolating filters. Some means are needed in the case of coarse percolating filters for the settlement of the effluent solids; and in the case of the contact beds we have assumed that a tank was required for the purpose of rendering the discharged liquid uniform in quality, and thus preventing the possible discharge of a putrescible effluent during the first flush, and, more especially, of putrescible solids. The effluent tank is of the Dortmund type, having a capacity of about 84,000 gallons, so as to provide for a stay in the tank of about two hours in each case. The total cost of this tank is calculated to be £682.

Loan Charges.

170. The following table gives the area and the assumed cost of the land occupied by the installations.

We have taken the price of land throughout at £100 per acre.

Preliminary Process.	Contact Beds.		Percolating Filters.	
	Land required (acres).	Cost of Land.	Land required (acres).	Cost of Land.
		£		£ s. d.
Quiescent settlement, with chemicals	1·26	126	0·73	73 0 0
Continuous flow settlement, with chemicals	2·03	203	0·91	91 0 0
Quiescent settlement, without chemicals	3·21	321	1·095	109 10 0
Continuous flow settlement, without chemicals	4·18	418	1·46	146 0 0
Septic tanks	4·18	418	1·46	146 0 0

Assuming that the loan is raised at 3½ per cent. interest per annum, and is repayable in equal annual instalments over a period of thirty years, the annual loan charges on the complete installations would be as follows :—

Preliminary Process.	Contact Beds.		Percolating Filters.	
	Loan charges in respect of Contact Bed Installation.		Loan charges in respect of Percolating Filter Installation including charges in respect of sprinklers.	
	Per annum.	Per million gallons (dry weather flow).	Per annum.	Per million gallons (dry weather flow).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement, with chemicals	507 3 9	1 7 10	470 19 7	1 5 10
Continuous flow settlement, with chemicals	858 4 0	2 7 0	558 11 3	1 10 7
Quiescent settlement, without chemicals	1,255 2 9	3 8 9	662 9 2	1 16 3
Continuous flow settlement, without chemicals	1,519 6 3	4 3 3	854 8 5	2 6 10
Septic tanks	1,519 6 3	4 3 3	854 8 5	2 6 10

Labour and Supervision.

171. For the contact bed installations, we assume that the services of two men (one for the day and one for the night) would be required, and for the percolating filter installations, the services of one man.

Taking the labourer's time at 21s. a week, and including one-third of the manager's time at a salary of £130 per annum (say, £43), the cost of labour and supervision in connection with the installations would be as follows :—

Preliminary Process.	Contact Beds.		Percolating Filters.	
	Per annum.	Per million gallons (dry weather flow).	Per annum.	Per million gallons (dry weather flow).
	£	s. d.	£	s. d.
Quiescent settlement, with chemicals	152	8 4	98	5 4½
Continuous flow settlement, with chemicals	152	8 4	98	5 4½
Quiescent settlement, without chemicals	152	8 4	98	5 4½
Continuous flow settlement, without chemicals	152	8 4	98	5 4½
Septic tanks	152	8 4	98	5 4½

Cost of washing and renewing Filtering Medium.

Contact Beds.

172. According to the evidence, which is dealt with in another part of this Report, we find that the average cost of removing, washing, replacing, and making good the material of a contact bed, by machinery, is about 1s. 6½d. per cube yard, exclusive of cost of washing plant.

In the present calculations we assume that the cost per cube yard of washing, etc., is 1s. 7d., and that the material in the primary beds would require washing every four years, and that in the secondary beds every ten years.

On these assumptions, one acre of primary beds, 3 feet deep, would cost £383 every four years for washing and renewal, or about £96 per annum ; and one acre of the secondary beds, £383 every ten years, or £38 6s. per annum.

Percolating Filters.

173. So far as our experience of percolating filters of coarse material has gone, we think it may be taken that the material of these filters will last for a very long period of time, if a few inches on the top of the filter are removed and renewed occasionally. At Accrington, Rochdale, and York, beds of this kind, constructed both of coke and clinker, have been in constant use for eight years. At Horfield a clinker bed, dismantled after five years' use, was found to be in almost the same condition as when it was started. We do not propose, therefore, to add anything to the cost of our percolating filter installations for washing and renewal of material.

Plant special to Percolating Filters.

174. We have assumed that the life of rotary sprinklers treating domestic sewage is ten years, and have therefore calculated the loan charges on this period.

At Accrington the annual cost of repairs to an automatic rotary sprinkler, taken over a period of three years, was found to average 18s. 4d. In our calculations, we have taken the cost of repairs at £1 per sprinkler per annum.

The following table shows our estimates of the cost of washing contact bed material, and, in regard to percolating filters, the sums required for repairs and loan charges in respect of sprinklers :—

Preliminary Process.	Contact Beds.		Percolating Filters.			
	Annual Charges in respect of Washing and Renewal of Beds.	Cost per million gallons in respect of Washing and Renewal of Beds.	Annual Loan Charges in respect of Sprinklers based on a ten year period.	Loan Charges in respect of Sprinklers per million gallons (dry weather flow).	Annual Cost of Repairs to Sprinklers.	Cost of Repairs to Sprinklers per million gallons (dry weather flow).
	£ s. d.	s. d.	£ s. d.	s. d.	£	d.
Quiescent settlement, with chemicals.	141 2 5	7 9	28 17 2	1 7	4	2½
Continuous flow settlement, with chemicals.	169 8 6	9 3	36 1 6	2 0	5	3¼
Quiescent settlement, without chemicals.	266 10 1	14 7	43 5 9	2 4½	6	3¾
Continuous flow settlement, without chemicals.	360 18 4	19 9	57 14 5	3 2	8	5¼
Septic tanks - - -	360 18 4	19 9	57 14 5	3 2	8	5¼

Total Cost for Filtration alone.

175. The total cost of the contact bed and percolating filter installations, including loan charges, labour and supervision, etc., according to the foregoing calculations, would be as follows :—

Preliminary Process.	Contact Beds.		Percolating Filters.	
	Per Annum.	Per Million Gallons (dry weather flow).	Per Annum.	Per Million Gallons (dry weather flow).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement, with chemicals -	800 16 2*	2 3 11*	572 19 7	1 11 5
Continuous flow settlement, with chemicals.	1,179 12 6	3 4 7	661 11 3	1 16 3
Quiescent settlement, without chemicals	1,673 12 10	4 11 8	766 9 2	2 1 11
Continuous flow settlement, without chemicals.	2,032 4 7	5 11 4	960 8 5	2 12 8
Septic tanks - - - - -	2,032 4 7	5 11 4	960 8 5	2 12 8

* Single contact assumed in this case.

Total Cost of Complete Treatment.

176. The total cost of each of the preliminary processes has been shown in another part of this Report. Adding this to each of the filtration processes, we arrive at the following figures for the total cost of the complete treatment of a dry weather flow of 1,000,000 gallons of sewage per day.

Per Annum.

Preliminary Process.	Contact Beds.			Percolating Filters.		
	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total Cost of Complete Treatment.	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total Cost of Complete Treatment.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement, with chemicals.	1,258 0 9	800 16 2*	2,058 16 11	1,258 0 9	572 19 7	1,831 0 4
Continuous flow settlement, with chemicals.	1,134 19 11	1,179 12 6	2,314 12 5	1,134 19 11	661 11 3	1,796 11 2
Quiescent settlement, without chemicals.	724 7 9	1,673 12 10	2,398 0 7	724 7 9	766 9 2	1,490 16 11
Continuous flow settlement, without chemicals.	564 12 8	2,032 4 7	2,596 17 3	564 12 8	960 8 5	1,525 1 1
Septic tanks - - -	629 4 11	2,032 4 7	2,661 9 6	629 4 11	960 8 5	1,589 13 4

Per Million Gallons (dry weather flow).

Preliminary Process.	Contact Beds.			Percolating Filters.		
	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total Cost of Complete Treatment.	Total Cost of Preliminary Treatment.	Total Cost of Filtration Process.	Total cost of Complete Treatment.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Quiescent settlement, with chemicals.	3 8 11	2 3 11*	5 12 10	3 8 11	1 11 5	5 0 4
Continuous flow settlement, with chemicals.	3 2 2	3 4 7	6 6 9	3 2 2	1 16 3	4 18 5
Quiescent flow settlement, without chemcals.	1 19 8	4 11 8	6 11 4	1 19 8	2 1 11	4 1 7
Continuous flow settlement, without chemicals.	1 10 11	5 11 4	7 2 3	1 10 11	2 12 8	4 3 7
Septic tanks - - -	1 14 6	5 11 4	7 5 10	1 14 6	2 12 8	4 7 2

177. On the basis which we have adopted, purification of sewage (after preliminary treatment) by means of percolating filters costs only about two-thirds as much as purification by double contact beds.

Where, however, the sewage has first been subjected to quiescent settlement, with chemicals, and single contact is sufficient to produce a satisfactory effluent, the cost becomes more nearly equal, though percolating filters are, even in that case, slightly cheaper.

The cost depends, of course, very largely on the kind of construction adopted.

Our estimates for the cost of double contact beds per acre, 3 feet deep, including filtering material, concrete, rendering, drains, distribution channels, engineering and contingencies, etc., amount approximately to £5,700 per acre. If the beds were built by simple excavation and banking, as is permissible in heavy clay soil, the cost would be very considerably reduced.

We have taken the price of filtering material at 6s. per cube yard, placed in position in the beds, which may be considered a fair average, though evidence shows the price has in some cases been much lower. Since this item alone amounts to about £1,396 per acre, 3 feet deep, it is at once apparent how largely the price of filtering material influences the cost of treatment.

* Single contact assumed in this case.

RELATIVE EFFICIENCY OF CONTACT BEDS AND PERCOLATING FILTERS.

178. Sewages vary in composition, not only in regard to the degree of dilution to which they are naturally subjected, but also in regard to the proportion in which different kinds of organic matter are present in them, and we are not aware of any really accurate method by which the work done by different filters, treating different sewages, can be compared.

We have, however, found it convenient to adopt, for the purpose of comparing the results obtained at different places, a unit of purification, which is based on the oxidizability of the sewage and the oxidizability of the filtrate, after giving credit for the oxygen contained in the effluent in the form of nitrate.

This basis for a unit was suggested by Dr. McGowan.

The unit of time we have taken as 24 hours, the unit of quantity as 1 gallon, and the unit of filtering material as 1 cubic yard.

Thus, to express the number of units of purification effected by a filter, we have deducted the number of parts by weight of oxygen taken up by 100,000 parts of the effluent from the filter, from the number of parts by weight of oxygen taken up by 100,000 parts of the liquor going on to the filter. The figure so obtained has been multiplied by the number of gallons of liquor, per cube yard, passing through the filter in 24 hours.

179. In his Memorandum* on the measurement of the strength of sewage, Dr. McGowan has set out reasons for adopting a formula, by which the figure representing the number of parts of oxygen which the sewage will take up can be calculated, with a fair degree of accuracy.

For the purpose of ascertaining the number of parts of oxygen which an effluent will take up, Dr. McGowan has also suggested that, in lieu of carrying out the actual experiment of keeping an effluent until it has become completely oxidized, and actually measuring the amount of oxygen taken up, the amount may be approximately arrived at by a calculation based on other figures of analysis. The formula which he suggests is:

(Ammoniacal *N.* + Organic *N.*) × 4·5 + Volatile matter of suspended solids × 2 – Nitric Nitrogen × 3.

As regards this formula, it is well known that the better an effluent is oxidized, the less change will it undergo on keeping. The work of Dr. Adeney and others has shown that, in the case of good effluents, the figure for organic nitrogen would represent, for the most part, organic matter which had undergone fermentation, and in considering the *quality* of such effluents, e.g., with reference to their effect on streams, we think the figure may generally be neglected.

It is, however, open to question whether, in calculating the work done by a filter, it is not better to include the figure inasmuch as the whole of the organic nitrogen of liquor going on to the filter has been taken into account in calculating, by the empirical formula given on page 16, the strength or oxidizability of that liquor.

The point is further discussed in the report by Dr. McGowan and Mr. Colin Frye on the estimation of work done by filters which is contained in Appendix IV.

Until the calculation method has been compared with the results of direct experiment in a large number of cases, no precise statement as to its value can be made, but we have found it convenient to adopt it in the preparation of this Report.

On this basis the following table has been compiled showing the units of purification effected by the filters at the places indicated.

* Appendix IV.

TABLE SHOWING THE UNITS OF PURIFICATION EFFECTED BY FILTERS.

Place.	Process of Treatment.	Character of Filtering Material.	Amount treated per cube yard of filter per day.	Strength * of Liquor Treated (calculated).	* Strength ‡ of Filter Effluent (calculated).	General Quality of Effluent, as described by Dr. McGowan.	Units of Purification.
			Gallons.	Parts per 100,000	Parts per 100,000		
Chorley	Chemical precipitation and percolating filters	Very fine to coarse	500	50	0·9	Good	24,550§
Rochdale	Septic tank and percolating filters	Coarse	141	83	4·4	Good	11,125
Dorking (Experimental Works)	Chemical precipitation and percolating filters	,,	211	55·3	3·9	Very fair	10,845
Kingston-upon-Thames	Chemical precipitation and single contact beds	Medium to coarse	250	51	7·7	Good	10,825
York	Septic tank and percolating filters	Coarse	150	58	−3·5‡	Good, apart from solids	9,225
Accrington	,, ,, ,,	,,	140	94	28·4	Good, apart from solids	9,184
Dorking (Experimental Works)	Chemical precipitation and percolating filters	,,	175	53·5	3·5	Very fair	9,065
,,	Settlement tank and percolating filters	,,	120	80·1	8·8	Fair	8,556
,,	Septic tank and percolating filter	,,	120	81·6	11·2	Moderate	8,448
Normanton	Chemical precipitation and percolating filters	Very fine to coarse	98	92	10·0	Very fair	8,036
Birmingham	Septic tank and percolating filter	Medium to coarse	82½	113	20·2	Fair to good	7,656
Hampton	Triple contact beds	1st bed, coarse; 2nd bed, medium; 3rd bed, fine	43	172	−3·7‡	Good	7,555
Halton	Settlement tanks and double contact beds	Coarse	106	80	10·8	Indifferent	7,335
Hartley Wintney	Septic tank and percolating filter	Medium to fine	73	108	8·5	Moderate	7,264
Manchester	,, ,, ,,	Medium	77	106	15·0	Rather poor	7,007
Huddersfield	Septic tank and single contact beds	Coarse	110	77·1	16·4	Good, apart from solids	6,897
Dorking (Experimental Works)	Chemical precipitation and percolating filter	,,	120	68·8	18·1	Not very good	6,084
Hartley Wintney	Septic tanks and single contact beds	Medium to fine	73	108	27·3	Poor	5,871
Huddersfield	Septic tank and double contact beds	1st, coarse; 2nd, medium	76	77·1	3·1	Fair to good	5,624
Calverley	Chemical precipitation and single contact beds	Coarse to fine	60	124	33·2	Poor	5,448
Rochdale	Chemical precipitation and percolating filter	Coarse	157	39	5·7	Good, apart from solids	5,228
Guildford	Septic tank and percolating filter	,,	50	109·2	4·8	Good	5,220

Heywood	Chemical precipitation and single contact beds	Very fine to coarse	173	40·2	11·0	Evidently not very good	5,052
Caterham	Septic tank and percloating filter	Medium to coarse	31	161	14·0	Fair	4,557
Withnell	Chemical precipitation and percolating filters	Very fine to coarse	63½	81	9·3	Very fair	4,553
Andover	Septic tank and single contact bed	Medium to fine	115	90	50·5	Poor	4,543
Horfield	Chemical precipitation and percolating filter	Coarse	151	36	6·0	Very fair to good	4,530
Leeds	Percolating filter (Leeds filter)	Very coarse	52	123	36·7	Fair	4,488
,,	,, ,, (Ducat)	Medium	25	172·6	2·3	Very good	4,373
,,	Septic tank and percolating filter	Coarse	63	75·8	7·2	Good, apart from solids	4,322
,,	Septic tank and double contact bed	1st, fine to medium; 2nd, medium	45	92·4	−3·1‡	Good	4,298
Guildford	Septic tank and percolating filter	Coarse	50	90·3	4·8	Good	4,275
Leeds	Double contact beds	1st, coarse; 2nd, medium	32	127	5·2	Moderate	3,998
Hendon	Percolating filter (Ducat)	Medium	40	107	7·9	Good, when settled	3,964
Maidstone	Double contact beds	1st beds, coarse; 2nd beds, fine	23·7	164	4·7	Moderate to fair	3,775
Exeter (Main Works)	Septic tank and single contact beds	Medium to coarse	55	99	31·2	Poor	3,729
Oswestry	Double contact beds	1st, medium to coarse; 2nd, medium	41	91	4·7	Fair	3,538
Sheffield	,, ,, ,,	Medium to fine	60	57·6	5·1	Good	3,150
Burnley	Septic tank and double contact beds	1st, coarse; 2nd, fine	40	74·1	−1·0‡	Good	3,004
Withnell	Double contact beds	1st, coarse; 2nd, medium	18·2	174	25·3	Not satisfactory	2,706
Exeter (St. Leonard's)	Septic tank and single contact beds	Medium to fine	75	39	3·0	Fair	2,700
Guildford	Septic tank and double contact beds	1st, medium to coarse; 2nd, medium to fine	22·7	125	6·2	Moderate	2,697
Leeds	Settlement tank and percolating filter	Coarse	63	59·7	16·9	Good, apart from solids	2,696
,,	Chemical precipitation and percolating filter	,,	50	51·8	−0·4‡	Good to very good	2,610
Oldham	Single contact beds	Medium to fine	73	51·1	15·7	Moderate	2,584
Little Drayton	Settlement tank and percolating filter	Medium	15·2	165	6·4	Good to fair	2,411
Withnell	Chemical precipitation and percolating filter	Very fine to coarse	63½	29·8	0	Good	1,892
Clifton	Settlement tank and percolating filter	,, ,,	15·6	123	5·8	Good to fair	1,828
Slaithwaite	Septic tank and single contact bed	Medium to coarse	62	35·6	6·3	Indifferent	1,817
Prestolee	Septic tank and percolating filter	Fine to coarse	46	22	0	*Very* good	1,012

* The strength of the liquor and filter effluent is expressed by the amount of oxygen required for the complete oxidization of its ammonia and organic matter. ‡ The minus sign which is placed against the figure representing the strength of certain effluents indicates that the oxygen present, in the form of nitrate, was, to the extent of the figure against which it is placed, more than sufficient to oxidize the organic matter in the effluent. § This figure is based on a volume of 500 gallons per cube yard per day—the actual rate at the time when the average samples were drawn. Probably about 400 gallons per cube yard per day is as much as the filters could continuously treat, and, on this basis, the number of units of purification would be rather under 20,000.

Accrington Experiments.

180. For the purpose of making an accurate comparison of the working power of contact beds and percolating filters treating the same sewage liquor, and also for comparing the treatment of strong and dilute tank liquors on each form of filter, we constructed an experimental plant at the Accrington Sewage Works.

The plant consisted of two pairs of exactly similar contact beds, 3 feet deep, and two exactly similar percolating filters, of rather coarse material, each 6 feet deep.

The cubic contents of each percolating filter was equal to that of each pair of contact beds.

The details of these experiments are set out in a Memorandum by Dr. McGowan and Mr. Colin Frye, contained in Appendix IV.

The experiments were carried out with great care, both on the spot and in the laboratory, and the results may be regarded as quantitative comparative results, from which we think useful generalisations may be drawn.

For the construction of the filters we are greatly indebted to Mr. W. J. Newton, the Surveyor to the Accrington and Church Sewage Board, while Mr. J. Boothman, the Chemist in charge at the outfall works, has controlled their daily working. The delicate adjustment of the dilutions of the tank liquor, upon which the whole value of the experiments depends, has been carried out by Mr. Boothman with the greatest care and skill, and with consistent success.

The liquor treated throughout has been the Accrington septic tank liquor, either by itself or diluted with water.

Our intention had been to treat at the same rate on the percolating filters and the contact beds, but as will be seen, it was not practicable to do this.

181. There were five experiments in all, as follows :—

Experiment I.—Comparative treatment on percolating filters and contact beds of (*a*) 100 gallons per cube yard per 24 hours of septic tank liquor and (*b*) 100 gallons of septic tank liquor + 100 gallons of water = 200 gallons of weak liquor.

The *actual average* rates of filtration on the two pairs of contact beds were 72·2 and 148·8 gallons per cube yard per day, respectively, the beds treating strong liquor being filled twice a day and those treating weak liquor four times a day. Broadly speaking, therefore, the contact beds only treated in this experiment three-fourths of the volumes treated by the percolating filters. This was owing partly to the original water capacity being less than 100 gallons per cube yard, and partly to their gradual loss of capacity. At the commencement of the experiment two fillings per day on the pair of contact beds treating strong liquor were equivalent to 90 gallons per cube yard, and four fillings per day on the pair treating weak liquor were equivalent to 179 gallons.

Duration of experiment :—May 5th, 1905, to June 30th, 1906.

Experiment II.—Comparative treatment on percolating filters and contact beds of (*a*) 100 gallons per cube yard per 24 hours of septic tank liquor and (*b*) of 50 gallons of septic tank liquor + 50 gallons of water = 100 gallons of weak liquor.

The *actual average* rates on the contact beds were 51·6 and 57·9 gallons per cube yard per day, respectively,

Duration of experiment : July 2nd, 1906, to March 23rd, 1907.

Experiment III.—Comparative treatment on percolating filters *alone* of (*a*) 125 gallons per cube yard per 24 hours of septic tank liquor and (*b*) 125 gallons of septic tank liquor + 125 gallons of water = 250 gallons of weak liquor.

Duration of experiment :—April 8th to June 7th, 1907.

Experiment IV.—Comparative treatment on percolating filters alone of (*a*) 200 gallons per cube yard per 24 hours of septic tank liquor ; and (*b*) 200 gallons of septic tank liquor + 200 gallons of water = 400 gallons of weak liquor.

Duration of experiment :—June 10th to October 26th, 1907.

Experiment V.—Comparative treatment on percolating filters alone of (*a*) 250 gallons per cube yard per 24 hours of septic tank liquor ; and (*b*) 250 gallons of septic tank liquor + 250 gallons of water = 500 gallons of weak liquor.

Duration of experiment :—October 28th, 1907, to June 18th, 1908.

The main object of these last three experiments, besides the further comparison between the purification of the two liquors, was to see how much these filters can actually treat, with the production of a good effluent.

The following is a general summary of the results of these experiments :—

182. *Accrington Experiment I.*—The percolating filters of coarse material effected practically the same amount of purification, whether they were treating 100 gallons per cube yard of undiluted septic tank liquor, or 200 gallons per cube yard of a liquor of half the strength, the total organic impurity going on to the filters being the same in both cases.

The primary contact bed, when the pair of beds were treating about 150 gallons of weak liquor per cube yard per day, gave rather better results than the primary bed of the pair treating strong liquor at half this rate, and the same is true, in each case, of the secondary beds. So long, therefore, as care is taken to avoid water-logging, *i.e.*, to give the beds sufficient time to drain and aerate, it is rather easier to treat upon contact beds two volumes of weak liquor than one volume of strong liquor.

During the fourteen months over which this experiment extended, the percolating filters treating strong liquor did one and a half times as much work as the contact beds treating strong liquor, while the percolating filters treating weak liquor did one and a third times as much work as the contact beds treating weak liquor.

The units* of purification were as follows :—

	Units of Purification per cube yard.
Percolating filter treating strong tank liquor - -	7,310
Double contact beds treating strong tank liquor -	5,011
Percolating filter treating weak tank liquor - -	7,678
Double contact beds treating weak tank liquor - -	5,803

As regards the quality of the two strong liquor effluents, *suspended solids included*, the results were slightly in favour of the percolating filter effluent, which still required 12 parts of oxygen per 100,000 for its complete oxidation, while the contact bed effluent required 16 parts. If we *eliminate the solids* in both cases, the oxidizability of the liquid alone would be approximately represented by 2 parts of oxygen in the case of the percolating filter effluent, and 8 parts in the case of the contact bed effluent. This superiority of the percolating filter effluent, so far as lesser oxidizability is concerned, was partly due to the fact that it contained 2·4 parts of nitric (plus nitrous) nitrogen, as against 1 part in the contact bed effluent ; but even apart from this, it was rather the better, the actual oxidizable matter left in the liquid being equivalent to about 8·5 parts of oxygen, while that in the contact bed effluent was equivalent to about 10 parts.

In the case of the two weak liquor effluents, suspended solids included, the results were in favour of the double contact bed effluent, which only required 4 parts of oxygen for its complete oxidation, as against 9·5 parts for the percolating filter effluent. If we eliminate the solids, there was practically no difference in the quality of the two effluents, both of them being well oxidized. If both solids and nitrate are eliminated, the double contact bed effluent is again rather the better, with an oxidizability figure of 4, as against 6·5 for the percolating filter effluent.

The above figures may be tabulated as follows :—

	Effluents from Strong Tank Liquor.		Effluents from Weak Tank Liquor.	
	Percolation.	Double Contact.	Percolation.	Double Contact.
† Oxidizability of whole effluent, including solids and giving credit for nitrate - - -	*Parts of* 12	*oxygen per* 16	100,000 *parts* 9·5	*of effluent.* 4·0
Oxidizability of effluent, without its suspended solids, and giving credit for nitrate - -	2	8	2·0	2·0 ap.
Oxidizability of effluent, without solids, and giving no credit for nitrate - - - - -	8·5	10	6·5	4·0

* The units of purification are calculated on the basis indicated on page 107 of this Report.

† Oxidizability calculated on the formula suggested by Dr. McGowan (see paragraph 179, page 107).

The quality of the effluents *without their suspended solids*, as regards taking up of dissolved oxygen in 24 hours and incubation, is shown by the following figures:—

Parts per 100,000.

	Effluents from Strong Tank Liquor.		Effluents from Weak Tank Liquor.	
	Percolation.	Double Contact.	Percolation.	Double Contact.
Dissolved oxygen taken up from water in 24 hours at about 18° C. (65° F.)	0·30 (22) 0·37 (12)	0·61 (11)	0·28 (21) 0·30 (11)	0·31 (10)
Incubation (by smell)	All passed (25).	All passed (11).	All passed (21).	All passed (10).

Figures in brackets represent number of estimations.

183. *Accrington Experiment II.*—In the comparative treatment, *upon the percolating filters of coarse material*, of 100 gallons of strong and 100 gallons of weak tank liquor, respectively, nothing was gained in purity of effluent by giving the filter treating the weak liquor only half the work to do; this filter was merely working much under its real power.

It was noteworthy that in Experiments I. and II. the actual efficiency of the contact beds (treating both strong and weak tank liquor), as regards work done per cube yard, remained the same throughout. In both experiments about two-thirds of the impurity of the septic tank liquor was removed by the primary bed, whether strong or weak liquor was being treated.

In Experiment II., which lasted for eight months, the percolating filter treating 100 gallons per cube yard of strong liquor did more than twice as much actual work as the double contact beds treating 51·6 gallons with two fillings per day; the reason for this increasing difference in work done, as compared with Experiment I., was the gradual loss of capacity in the contact beds.

The units of purification in Experiment II. were as follows:—

	Units of Purification per cube yard.
Percolating filter treating strong tank liquor	8,440
Double contact beds treating strong tank liquor	3,576
Percolating filter treating weak tank liquor	4,120
Double contact beds treating weak tank liquor	2,200

The quality of the effluents was as follows:—

	Effluents from Strong Tank Liquor.		Effluents from Weak Tank Liquor.	
	Percolation.	Double Contact.	Percolation.	Double Contact.
	Parts of oxygen per 100,000 *parts of effluent.*			
Oxidizability of whole effluent including solids, and giving credit for nitrate	−3·2	14·0	−0·7	4·2
Oxidizability of effluent, without its suspended solids and giving credit for nitrate	−6·2	5·8	−3·3	0·2
Oxidizability of effluent, without solids and giving no credit for nitrate	3·6	7·7	2·4	3·2

Note.—The minus sign indicates that the oxygen present, in the form of nitrate, was, to the extent of the figure against which it is placed, more than sufficient to oxidize the organic matter in the effluent.

The quality of the effluents—*without their suspended solids*—as regards taking up of dissolved oxygen and incubation, is shown by the following figures :—

	Effluents from Strong Tank Liquor.		Effluents from Weak Tank Liquor.	
	Percolation.	Double Contact.	Percolation.	Double Contact.
		Parts per 100,000.		
Dissolved oxygen taken up from water in 24 hours at about 18° C.	0·03 (4)	0·12 (4)	0·07 (4)	0·10 (4)
Dissolved oxygen taken up from water in 5 or 6 days	0·43 (3)	1·70 (3)	0·33 (4)	1·0 ap. (3)
Incubation (by smell)	All passed (8)	All passed (8)	All passed (8)	All passed (8)

The capacities of the contact beds were as follows :—

	At beginning of Experiment, July 2nd, 1906.	At end of Experiment, February 18th, 1907.	Loss of capacity in Gallons.	Percentage loss of water capacity.
	gallons.	gallons.		
Primary bed treating strong tank liquor	735	640	95	8 per cent.
Secondary bed treating strong tank liquor	1,030	970	60	6 „
Primary bed treating weak tank liquor	780	750	30	3 „
Secondary bed treating weak tank liquor	950	890	60	6 „

As already stated, the actual volumes of liquid treated per cube yard per twenty-four hours throughout Experiment II. were :—

Percolating filter treating strong tank liquor - 100 gallons.
Double contact beds treating strong tank liquor - 51·6 „
Percolating filter treating weak tank liquor - 100 „
Double contact beds treating weak tank liquor - 57·9 „

The contact beds thus treated only about half as much liquor, in both cases, as the percolating filters.

184. *Accrington Experiment III.*—In this experiment, which lasted from April 8th to June 7th, 1907, the percolating filter treating strong liquor received 125 gallons per cube yard per day and that receiving weak liquor 250 gallons per cube yard per day. It was thus similar to Experiment I, but with an increased dose in the case of both filters, the object being to see how much the filters could actually treat with efficiency. Owing to the wet season, however, the strength of the liquors in this last experiment was less than in Experiments I and II, thus :—

	Calculated Strength.	Suspended Solids.
Strong tank liquor	73·2	20·1
Weak tank liquor	40·7	10·3

The suspended solids in the filter effluents were rather high, on account of the " spring out-flush." *

The purification obtained was as follows :—

	Units of Purification per cube yard.
Percolating filter treating strong tank liquor	8,050
Percolating filter treating weak tank liquor	9,225 ..

* As is now well known, large quantities of suspended solids usually come out in the effluent from a percolating filter of coarse material in the late spring, with the advent of the warmer weather. This appears to be due to the development of worms, larvæ, etc., in the interior of the filter at this time. The same thing has been observed, though in lesser degree, in the case of percolating filters of fine material and also contact beds.

The quality of the two effluents is shown by the following figures :—

	Effluents from Strong Tank Liquor.	Effluents from Weak Tank Liquor.
	Parts of oxygen per 100,000 parts of effluent.	
Oxidizability of whole effluent, including solids and giving credit for nitrate.	8·8	3·8
Oxidizability of effluent, without its suspended solids and giving credit for nitrate.	– 2·2*	– 1·4*
Oxidizability of effluent, without solids and giving no credit for nitrate.	4·8	2·7

The quality of the effluents—*without their suspended solids*, as regards taking up of dissolved oxygen and incubation—is shown by the following figures :—

	Effluent from Strong Tank Liquor.	Effluent from Weak Tank Liquor.
Dissolved oxygen taken up from water in 5 days at 18° C.	0·62 (5)	0·84 (5)
Incubation (by smell)	All passed (5)	All passed (5)

Both effluents were therefore very good, and, apart from their suspended solids, there was practically nothing to choose between them. It will be noted that the filter treating weak liquor was receiving a liquor a little more than half as strong as the other (calculated strength—40·7, as against 73·2 for the strong liquor).

Owing to the strong liquor being less concentrated in this experiment than in the two preceding ones, the actual work done on the filter treating strong liquor was only 8,050 units per cube yard per 24 hours, but in the case of the filter treating weak liquor it was 9,225 units.

185. *Accrington Experiment IV.*—In this experiment, which lasted from June 10th to October 26th, 1907, the percolating filter treating strong liquor received 200 gallons per cube yard per day, and that receiving weak liquor 400 gallons per cube yard per day. It was thus similar to Experiments I. and III., but with a further increased dose in the case of both filters. The calculated strengths of the tank liquors in this experiment were almost the same as in the preceding one, but the suspended solids were less in amount, thus :—

	Calculated Strength.	Suspended Solids.
Strong tank liquor	74·1	13·5
Weak tank liquor	39·6	6·3

The weak liquor filter was again treating a liquor which was *rather more* than half as strong as the other.

The purification obtained was as follows :—

	Units of Purification per Cube Yard.
Percolating filter treating strong tank liquor	14,300
Percolating filter treating weak tank liquor	15,160

The quality of the two effluents is shown by the following figures :—

	Effluents from Strong Tank Liquor.	Effluents from Weak Tank Liquor.
	Parts of oxygen per 100,000 parts of effluent.	
Oxidizability of whole effluent, including solids and giving credit for nitrate	2·6	1·7
Oxidizability of effluent, without its suspended solids and giving credit for nitrate	– 3·8*	– 3·1*
Oxidizability of effluent, without solids and giving no credit for nitrate	4·4	2·3

* The minus sign indicates that the oxygen present, in the form of nitrate, was, to the extent of the figure against which it is placed, more than sufficient to oxidize the organic matter in the effluent.

The quality of the effluents—*without their suspended solids*, as regards taking up of dissolved oxygen and incubation—is shown by the following figures :—

	Effluent from Strong Tank Liquor.	Effluent from Weak Tank Liquor.
Dissolved oxygen taken up from water in five days at 18°C.	·0·56 (9)	·0·49 (9)
Incubation (by smell)	All passed (9)	All passed (9)

Here, again, both effluents were well oxidized and good, and there was little to choose between them. If anything, they were rather better oxidized than the corresponding effluents in Experiment III. (notwithstanding the lesser volumes treated in that case), as judged by the dissolved oxygen taken up by the paper-filtered effluents in five days. This was probably due to the fact that more of the warm summer months were included in Experiment IV.; and that the spring out-flush of solids took place during Experiment III.

The work done on the filter treating strong liquor was 14,300 units, and on the filter treating weak liquor 15,160 units.

186. *Accrington Experiment V.*—In this final experiment, which lasted from October 28th, 1907, to June 18th, 1908, the percolating filter treating strong liquor received 250 gallons per cube yard per day, and that receiving weak liquor 500 gallons per cube yard per day. The calculated strengths of the liquors treated were a little less than in Experiment IV., though suspended solids were present in rather larger amount, thus :—

	Calculated Strength.	Suspended Solids.
Strong tank liquor	69·4	14·4
Weak tank liquor	37·0	7·4

As before, the weak liquor filter was treating a liquor which was fully half as strong as the other.

The purification obtained was as follows :—

	Units of Purification per cube yard.
Percolating filter treating strong tank liquor	12,425
Percolating filter treating weak tank liquor	14,600

The quality of the two effluents is shown by the following figures :—

	Effluents from Strong Tank Liquor.	Effluents from Weak Tank Liquor.
	Parts of oxygen per 100,000 parts of effluent.	
Oxidizability of whole effluent, including solids and giving credit for nitrate	19·7	7·8
Oxidizability of effluent, without its suspended solids and giving credit for nitrate	7·1	2·2
Oxidizability of effluent, without solids and giving no credit for nitrate	10·8	5·0

The quality of the effluents—*without their suspended solids*, as regards taking up of dissolved oxygen and incubation—is shown by the following figures :—

	Effluent from Strong Tank Liquor.	Effluent from Weak Tank Liquor.
Dissolved oxygen taken up from water in five days at 18°C. -	2·31 (13)	1·16 (13)
Incubation (by smell) - - - - - - - - - -	{ 11 passed / 2 failed (13) }	All passed (13)

The effluents in Experiment V. thus show a marked falling off in quality as compared with those in Experiments IV. and III. Leaving suspended solids out of account, the weak liquor effluent is distinctly better, relatively, than the effluent from the strong liquor. It will be noted, however, that even in this last experiment, after filtration through paper, only two of the thirteen strong liquor effluents failed on incubation, while all thirteen weak liquor effluents passed that test. The latter effluents might be described as fairly good, but the strong liquor effluents as rather poor. The spring outflush of solids again took place during this experiment, which—it must be borne in mind—was carried out for the most part in the coldest months of the year.

The work done on the filter treating strong liquor was 12,425 units and on the filter treating weak liquor 14,600 units.

It was evident, from the appearance of the filters during the progress of Experiment V., that they were being overtaxed, especially the strong liquor filter. The concrete at the base of the filters gradually became blackened and covered, more or less, with grey fungus, while at times the effluents smelt slightly of sewage.

187. Reviewing shortly the foregoing five experiments, we think that they may be taken to show that percolating filters of coarse material, 6 feet deep, can treat a strong septic tank liquor (strength 73 to 85) at a rate of 100 to 125 gallons per cube yard per day, or a liquor of half this strength at the rate of 200 to 250 gallons, giving from 8,000 to 9,000 units of purification, and producing at the same time a good effluent (apart from suspended solids).

Under favourable conditions of summer weather, a strong septic tank liquor (strength 74) can be treated at a rate up to 200 gallons per cube yard per day, or a liquor of half this strength at a rate up to 400 gallons per day, with from 14,000 to 15,000 units of purification and the production of a good effluent. This, we think, is probably the maximum work which can be expected from percolating filters of coarse material treating ordinary septic tank liquor at a regular rate of flow.

As regards the question whether it is easier to treat upon percolating filters of coarse material one volume of strong septic liquor or two volumes of weak, the organic impurity being the same in both cases, there is little difference either in the actual work done by the filters or in the quality of the effluents, at rates of working up to 200 and 400 gallons per cube yard per day. If any distinction is to be drawn, the advantage lies with the filter treating the weaker liquor, no doubt because the natural aeration of the extra volume of liquid rather more than counterbalances the quicker rate of flow through the filter.

Apart from complications arising from the presence of large quantities of suspended solids (*cf.* pp. 48 *et. seq.*), we think that the above statement with regard to the purification of strong and weak septic-tank liquors may be taken to apply also to settled sewage and precipitation liquor.

Double contact beds will, during their first year of work, at the rate of two fillings per day, treat 70 gallons of strong or 150 gallons of weak tank liquor per cube yard per day, with 5,000 to 6,000 units of purification for the first year. Their working power will, however, gradually fall off as the beds lose capacity. Here, again, it is rather easier to treat two volumes of weak than one volume of strong liquor.

It is clear from these experiments that, other things being equal, a greater purification per cube yard, as measured by the actual *amount* of oxygen used up, is effected when the final product is an *imperfectly* oxidized effluent. The indications are that, unit for unit, the first or carbon stage of the oxidation is, under the conditions of filtration, easier, or at least quicker, and therefore presumably requires less expenditure of energy than the second or nitrification stage. We may perhaps be able to make some further experiments with these filters, to clear up this point.

At the end of this section (*see* p. 121) we print in a summarized form tables of the results from a large number of places, most of which have been under our own observation.

General Conclusions as to the Working Power of Different Types of Filter.

188.—*Treatment of Crude or Partially Settled Sewage upon Double Contact Beds.*

The volume of sewage which can be treated by double contact, so as to give a fair or good effluent, varies almost inversely as the "strength," *e.g.*, 24 gallons per cube yard per day of sewage with a strength of 164, or 58 gallons of sewage with a strength of 60. During the "economic life" of the beds, an average of 3,000 to 4,000 units of purification per cube yard of filter per day may be looked for in the treatment of crude or settled sewage upon primary beds of coarse material and secondary beds of fine material, an effluent of fair to good quality being produced.

Treatment of Crude or Partially Settled Sewage on Percolating Filters.

Broadly speaking, the volume of sewage which can be treated upon percolating filters, with the production of a good effluent, depends mainly upon its strength, especially if no complications ensue through the choking of the filter and if the filter is working up to its full power. Twenty to 25 gallons per cube yard per day of a sewage having a strength of about 170, or 60 gallons of sewage with a strength of 60, can be successfully dealt with upon filters of medium to coarse material, 2,500 to 3,500 units of purification being obtained. When the sewage is *well settled*, about 100 to 120 gallons of such sewage with a strength of about 80, can be filtered per cube yard per day, and 7,000 to 8,000 units of purification, or probably even more than this,† obtained. In this case, therefore, the process is comparable with the treatment of septic liquor upon percolation filters.

Treatment of Septic Tank Liquor on Single Contact Beds.

The volume of septic tank liquor which can be treated by single contact varies almost inversely as the strength of the liquor. Single beds of medium to coarse or medium to fine material, may be expected to give from 3,000 to 4,500 units of purification, when dealing with either strong or weak liquors. If the tank liquor is a weak one, and if the material of the bed is fine, this purification will be sufficient to yield a good or fairly good effluent, but not otherwise. A weak liquor, of strength 30 to 50, and containing up to 6 or 8 parts of suspended solids, can in this way be successfully treated at the rate of 100 to 150 gallons per cube yard per day. As a rule, however, septic tank liquors are too strong to allow of one contact being sufficient to give a good effluent.

Treatment of Septic Tank Liquor on Double Contact Beds.

The volume of septic tank liquor which can be treated by double contact varies almost inversely as the strength. Where the *primary* beds are of medium to fine material a strong liquor of strength 90 may be treated by double contact at the rate of 50 gallons per cube yard per day; a liquor of strength 70 at the rate of 70 gallons; and a weak liquor of strength 40 at the rate of 100 gallons. From 3,500 to 4,500 units of purification may be expected here, with the production of good effluents.

Treatment of Septic Tank Liquor on Percolating Filters.

The volume of septic tank liquor which can be treated upon percolating filters varies more or less inversely as the strength. A percolating filter of coarse or of medium to coarse material, and from 6 to 9 feet in depth, may be expected to give from 7,000 to

† *Cf.* Appendix IV., Report to the Commission on the Dorking Experimental Installations, by E. H. Richards (1907).

11,000 units of purification when treating either strong or weak tank liquors, and to yield good effluents. This would correspond to 80 gallons per cube yard of a strong liquor of strength 113, or 150 gallons of a weak liquor of strength 58. The less coarse the material, provided that it can allow the free passage of effluent suspended solids through it, the greater is the relative purification per cube yard.

Treatment of Precipitation Liquor on Single Contact Beds.

Our data with regard to this process are rather few, but they indicate clearly that—as in the case of settled sewage and septic tank liquor—single contact of precipitation liquor from strong sewages is not sufficient to produce a good effluent. The better clarified the liquor, the more of it can be treated. The very well clarified liquor at Kingston-on-Thames, with a strength of about 50, was treated for over six years upon an experimental coke bed of medium to coarse material, 3 feet deep, at a rate of 250 gallons per cube yard per day (four fillings), giving 10,800 units of purification and producing a fair to good effluent. A more dilute tank liquor, equally well clarified, might be treated in even larger volume than this, so far as the " strength " was concerned, but it is doubtful whether more than four fillings per day would be practicable on a large scale for any length of time.

Treatment of Precipitation Liquor on Double Contact Beds.

We have had no actual experience of this process, which would be applicable to precipitation liquors from strong sewages. We should not expect, however, to obtain such a high figure for units of purification as in the treatment of medium or weak liquor by single contact. Probably about 6,000 to 7,000 units would be the maximum obtainable. This would correspond to about two to two and-a-half fillings per day of a liquor of strength 100 or about three to three and-a-half fillings of a liquor of strength 75.

Treatment of Precipitation Liquor on Percolating Filters.

In this case it cannot be said that the volume of precipitation liquor treated per cube yard of filter at the different places under observation varied inversely as the strength. The main reason for this is that suspended solids can be reduced in most precipitation liquors to a very low figure, in which case very fine material may be used for the filtration of large volumes. At the places which were under observation the filtering material varied greatly in size and the liquors contained very different quantities of suspended solids. Nevertheless with material of a given size, strength and volume would, no doubt, bear an inverse relation to one another. From the results obtained with percolating filters, of coarse and fine material, respectively, we have arrived at the following broad conclusions :—

(*a*) The volume of precipitation liquor which can be treated upon filters of *coarse* material depends mainly upon the strength of the liquor.

(*b*) The volume which can be treated upon filters of *fine* material depends not merely upon the strength, but also to a marked extent upon the degree of clarification of the liquor.

Upon deep filters of coarse material, about 150 gallons of precipitation liquor of about average strength (strength 50 to 60) or 200 to 250 gallons of weak liquor (strength 30 to 40) can be treated per cube yard per day, yielding up to about 8,000 units of purification, and producing a good effluent. In the case of very strong liquors the volume would probably have to be *more than* proportionately reduced.

Upon shallow filters of fine material a *clear* liquor with a strength of 50 can be treated at the rate of 300 to 400 gallons per cube yard per day, giving about 18,000 units of purification, and producing a very fair to good effluent. It has to be borne in mind, however, that filters of very fine material working at this rate have to be constantly washed and scraped. About 500 gallons per cube yard per day would probably be the largest volume of any liquor, however weak, that could be treated on such filters regularly, day by day.

The rates of treatment which are given in the foregoing paragraphs could generally be doubled in times of storm.

Summary.

189. The following tables gives an *approximate* idea of the purification which can be effected by different kinds of filter treating different liquors, so as to produce a fair to good effluent :—

	Units of Purification per cube yard :—
Crude or partially settled sewage treated on double contact beds	3,000 to 4,000
Crude or partially settled sewage treated on percolating filters	2,500 to 3,500
Well settled sewage treated on percolating filters	7,000 to 8,000, and probably up to 11,000
Septic tank liquor treated on single contact beds	3,000 to 4,500
Septic tank liquor treated on double contact beds	3,500 to 4,500
Septic tank liquor treated on percolating filters	7,000 to 11,000
Precipitation liquor treated on single contact beds	Up to 11,000
Precipitation liquor treated on double contact beds	*Probably* up to 6,000 to 7,000
Precipitation liquor treated on percolating filters :—	
(*a*) Filters of coarse material	Up to about 8,000
(*b*) Filters of fine material	Up to about 18,000

General Summary as to Contact Beds and Percolating Filters.

190. (1)—The amount of sewage which can be purified per cube yard of contact bed or percolating filter varies—within practical limits—nearly inversely as the strength of the liquor treated. This statement is based on the assumption that the size of the material of which the filter is composed is, in each case, suitable to the character of the liquor treated, and that the material is arranged at the proper depth to secure maximum efficiency (*see* Paragraph 153, p. 87).

(2) Taking into account the gradual loss of capacity of contact beds, a cubic yard of material arranged in the form of a percolating filter will generally treat satisfactorily nearly twice as much tank liquor as a cubic yard of material in a contact bed.

(3) In the case of sewage containing substances which have an inhibitory effect upon the activity of micro-organisms, the working power per cube yard of filter of either type may be more nearly equal. This point, however, is not clearly established.

(4) Percolating filters are better adapted to variations of flow than contact beds.

(5) The effluents from percolating filters are usually much better aerated than the effluents from contact beds, and apart from suspended solids, are of a more uniform character. On emptying a contact bed, the first flush is usually much more impure than the average effluent from the bed.

(6) The risk of nuisance from smell is greater with percolating filters than with contact beds.

(7) It is also found that with percolating filters, there is nuisance from flies, especially with filters constructed of coarse material. In the warmer months of the year, such filters swarm with members of the *Psychodidae*, which, though appearing to breed and develop in the filters, may usually be seen in large numbers on the walls of houses and buildings close to or on the works. At Accrington and Dorking a small midge-like fly with a dark body and striped wings has appeared and causes inconvenience to the men by its bite, which gives rise to local irritation.

TABLES OF ANALYTICAL RESULTS OBTAINED: (*a*) AT THE DIFFERENT SEWAGE WORKS WHICH HAVE BEEN UNDER OBSERVATION BY OUR OWN OFFICERS; (*b*) BY THE AUTHORITIES AT THE SEWAGE WORKS OF BIRMINGHAM, BURNLEY, HEYWOOD, HUDDERSFIELD, LEEDS, MANCHESTER, OLDHAM, AND SHEFFIELD.

Prefatory Note to Tables.

191. The figures of analysis given for crude and settled sewage, septic tank liquor, and precipitation liquor, refer to the *hourly* sets of samples only in the case of the works which have been under observation by our own officers, these hourly sets representing as far as possible the dry weather flow. For purposes of comparison, we have given the average figures for the *hourly* sets of effluent samples (*i.e.*, dry weather samples), and the average figures for the ordinary *chance* samples of effluent. There were, as a rule, a fair number of such chance effluents examined from each place, and the figures may generally be looked upon as representing roughly the average of the effluents obtained in all weathers. In the case of the other places (Leeds, Manchester, etc.) the figures given for the sewages, tank liquors, and effluents are the averages of a very large number of *chance* samples. These latter figures were furnished by the authorities of the various sewage works mentioned, and they are printed in italics to distinguish them from our own figures.

The figures for "oxygen absorbed in four hours" given in italics were obtained with weak permanganate, and therefore require to be multiplied by 1·6, in order to make them fairly comparable with our own *four hours*' figures, which were obtained with strong permanganate.

With regard to the bacteriological notes, wherever possible, the figures given refer to the number of B. Coli (or Coli-like microbes) per c.c. In the few cases where this test was not applied, or where the records were very few in number, approximate figures are given, based upon the results obtained by the use of one or more presumptive tests for B. Coli. The results frequently varied so much that the figures can only be taken as being roughly approximate; bacteriological results obtained by the decimal method of dilution do not lend themselves readily to expression in the form of averages. Further, a good deal of latitude has been exercised in the way of pitting high results against low results and ignoring exceptional ones. We think, therefore, that the bacteriological figures given in the following tables should be read in the light of the detailed tables which are incorporated in the text of the separate reports, printed in Appendix III.

TABLE I.—ANALYSES OF CRUDE SEWAGE.

No.	Place.	Population	System of Sewerage.	Dry weather flow of Sewage (gallons).	Nature of Sewage.	Analysis of Sewage. Parts per 100,000.				B. Coli per c.c.	Preliminary Grit Settlement.	Remarks.
						Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.			
1	Hampton	6,500	Separate	180,000	Strong domestic	9·40	1·38	17·82	48·5	At least 100,000.	Partial settlement on surface of primary beds.	
2	Leeds	450,000	Combined	15,500,000	Trade sewage	*3·28* *2·30* *1·54*	*1·26* *0·65* *0·85*	*14·10* *10·27* *10·80*	*85·0* D. *53·3* L. *52·5* C.	About 100,000.	Partial settlement	Experimental processes. Fixed quantity treated daily; compare D with Ducat filter effluent, C with contact bed effluent, and L with "Leeds" filter effluent.
3	Maidstone	34,000	Partially separate.	1,500,000	Domestic, with much brewery and tannery waste.	3·51	1·52	21·03	34·8	At least 100,000.	Partial settlement in pump well.	Experimental process. Fixed quantity treated daily.
4	Newton	9,000	Combined	145,000	Domestic (mainly slop water).	4.30*	0·86*	12·32	30·6	At least 100,000.	Slight settlement in distributing troughs.	
5	Withnell	1,650	Partially separate.	15,000	Very strong domestic	5·35	1·23	21·19	33·9	At least 100,000.	Partial settlement in grit chamber.	Experimental process. Fixed quantity treated daily.

NOTE.—The figures of analysis given in ordinary type are, as a rule, averages of three sets of twenty-four hourly samples, drawn in dry weather, according to rate of flow. The figures of analysis given in italics are, as a rule, averages of a large number of chance samples, drawn in all weathers. All figures for "Oxygen absorbed in four hours" given in italics, having been obtained with "weak" permanganate, must be multiplied by 1·6 to compare approximately with the figures for "Oxygen absorbed in four hours" given in ordinary type, the latter having been obtained with "strong" permanganate.

* These numbers are inferred; they will be nearly right.

TABLE II.—SETTLEMENT OF SEWAGE

No.	Place.	Population.	System of Sewerage.	Dry weather flow of Sewage (gallons).	Nature of Sewage.	Analysis of Sewage. Parts per 100,000. Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli per c.c.
7	Clifton - -	2,000	Partially separate.	22,000	Strong slop-water domestic.	3·78	1·11	26·07	49·1	At least 100,000.
8	Halton - -	2,000	Combined	35,000	Domestic (mainly slop-water).	4·74	*0·85	11·83	17·7	At least 100,000.
9	Little Drayton -	1,550	Ditto	12,000	Strong slop water domestic.	7·57	1·41	24·44	23·9	At least 100,000.
10	Leeds - - -	450,000	Ditto	15,500,000	Trade sewage.	*1·92*	*0·68*	*11·34*	*58·1*	About 100,000.
11	Oswestry - -	9,800	Ditto	350,000	Domestic with brewery and tannery waste.	3·53	0·91	11·27	29·4	At least 100,000.
12	Sheffield - -	400,000	Ditto	14,500,000	Trade sewage.	*2·61*	*0·76*	*7·08*	*50·2*	
13	Oldham - -	—	Ditto	2,250,000	Rather weak domestic.	*3·17*	*0·77*	*5·60*	*51·2*	About 100,000.

NOTE.—The figures of analysis given in ordinary type are, as a rule, averages of three sets of twenty-four hourly a large number of chance samples drawn in all weathers. All figures for "oxygen absorbed in four hours" given with the figures for "oxygen absorbed in four hours" given in ordinary type, the latter having been obtained with

WITHOUT THE AID OF CHEMICALS.

Rate of flow through tanks (expressed in time taken to fill tank in dry weather).	Analysis of Settled Sewage. Parts per 100,000. Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli per c.c.	Tanks Cleaned.	Method of Disposing of Sludge.	Remarks.
5·3 hours	3·96	0·76	15·13	24·2	100 to 10,000.	Every 5 weeks	Taken by farmer.	
15·5 hours	4·72	*0·69	8·33	10·7		Every 7 weeks	Lagooned, taken by farmers when dry.	
0·93 hours	7·54	1·16	18·21	19·9		Every week	Lagooned	
4·0 hours	*1·60*	*0·37*	*5·24*	*12·8*			Lagooned	Experimental process.
average rate	*1·74*	*0·39*	*5·50*	*12·2*				
8·0 hours	*1·90*	*0·41*	*5·84*	*11·7*				
4·1 hours	3·48	0·92	10·37	22·8		Every 4 or 5 weeks.	Mixed with house ashes and taken by farmers.	
8 hours	*2·19*	*0·41*	*4·23*	*10·7*		Every week	Lagooned	Experimental process.
12 hours	*3·22*	*0·53*	*3·06*	*15·8*			Pressed and taken by farmers.	

samples drawn in dry weather, according to rate of flow. The figures of analysis given in italics are, as a rule, averages of in italics, having been obtained with "weak" permanganate, must be multiplied by 1·6 to compare approximately "strong" permanganate. * The figures are probably rather too high.

TABLE III.—TREATMENT OF

No.	Place.	Population.	System of Sewerage.	Dry weather flow of sewage (gallons).	Nature of Sewage.	Analysis of Sewage. Parts per 100,000. Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli per c.c.
14	Accrington -	46,300	Combined	1,180,000	Strong domestic.	5·18	0·68	9·93	43·3	At least 100,000.
15	Andover - -	5,000	Partially separate.	150,000	Domestic, with brewery waste	7·37	1·18	10·02	16·5	At least 100,000.
16	Birmingham -	865,701	Combined and partially separate.	22,000,000	Trade sewage	*3·67**	*0·98**	*20·32**	*48·4**	—
17	Burnley - -	82,000	Ditto	2,000,000	Domestic, with trades waste.	*3·32*	*0·97*	*9·98*	—	—
18	Caterham - -	1,300 (assumed.)	Separate	17,000	Very strong domestic.	13·41	1·75	17·99	42·1	At least 100,000.
19	Exeter (St. Leonards).	1,500	Partially separate.	70,000	Weak domestic.	2·86†	—	4·35	13·0	At least 100,000.
20	Exeter (Main works).	38,000	Combined	1,300,000	Domestic, with trades waste.	4·66	1·37	19·86	37·2	About 100,000.
21	Guildford - -	16,000	Partially separate.	400,000	Domestic, with brewery waste.	7·39	1·91	21·96	42·1	At least 100,000.
22	Hartley Wintney	1,600	Ditto	45,000	Ditto	A. 2·43 B. 7·47	0·68 1·79	14·61 18·64	20·1 32·7	At least 100,000.
23	Huddersfield -	100,000	Combined	7,000,000	Trade sewage	*1·00*	*0·60*	*10·40*	*40·0*‡	—
24	Knowle - -	1,600	Partially separate.	41,000	Domestic	4·02	0·71	8·07	19·4§	At least 100,000.
25	Leeds - -	450,142	Combined	16,000,000	Trade sewage	*2·57* *2·63*	*0·71* *0·90*	*11·20* *11·77*	*63·0* C. *59·8* P.	About 100,000.
26	Manchester -	575,000	Ditto	25,300,000	Ditto	*2·27*	*0·51*	*10·50*	*35·0*	10,000 to 100,000.
27	Prestolee - -	500	Separate	18,000	Very weak (slop water) domestic	0·42	0·15	3·57	5·4*	About 1,000
28	Rochdale - -	52,000	Combined	1,310,000	Domestic, with wool washings.	4·16	1·29	26·55	36·7	At least 100,000.
29	Sheffield - -	400,000	Ditto	14,500,000	Trade sewage	*2·61*	*0·76*	*7·08*	*50·2*	—
30	Slaithwiate- -	3,000	Partially separate.	140,000	Weak domestic.	1·66	0·40	4·60	10·7§	Usually 100,000.
31	York - - -	80,000	Combined and partially separate.	4,250,000	Domestic, with trades waste.	2·58	0·82	13·83	21·2	At least 100,000.

NOTE.—The figures of analysis given in ordinary type are, as a rule, averages of three sets of twenty-four hourly a large number of chance samples, drawn in all weathers. All figures for "Oxygen absorbed in four hours" given with the figures for "oxygen absorbed in four hours" given in ordinary type, the latter having been obtained with represents the average quantity of suspended matter in the Huddersfield sewage, in dry weather. § Average of

SEWAGE IN SEPTIC TANKS.

Rate of flow through tanks (expressed in time taken to fill tank in dry weather.)	Analysis of septic tank liquor. Parts per 100,000. Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli per c.c.	Tanks Cleaned.	Method of Disposing of Sludge.	Remarks
42 hours	5·03	0·34	8·67	19·4	At least 100,000.	Every 4 to 6 months.	Lagooned and sold when dried.	
19·3 hours	7·44	0·98	7·53	11·1	At least 100,000.	Partial removal at short intervals.	Run into trenches and covered over.	
10-12 hours	*6·12*	*0·88*	*15·86*	*19·5* A.	—	Roughing tanks once a week. Septic tanks periodically.	Buried in adjacent ground.	"A" represents the septic tank liquor as a whole and "B" the same liquor after it has passed through Dortmund tanks, but also after it has received 3,000,000 gallons of domestic sewage at Tyburn.
	6·67	*0·54*	*12·00*	*8·10* B.				
15 hours	*2·54*	*0·50*	*6·33*	*5 to 6*	—	Every six months	Sludge pressed and sold to farmers.	
—	18·48	1·06	10·15	12·6 A.	About 100,000.	—	Run on to ground	Only one-third of sewage treated. The liquor represented by analysis "A" runs on to filter, while that represented by "B" runs on to land.
	18·09	1·38	13·89	25·4 B.				
17·8 hours	4·12	0·65	3·64	5·7	At least 100,000.	After 2 or more years.	Lagooned	
11·5 hours	5·40	0·91	10·20	12·5	About 100,000.	Partial removal at short intervals.	Buried in fine clinker screenings.	
36·7 hours	9·11	1·00	11·42	15·9	At least 100,000.	—	Buried shallow in ground.	Experimental process. Fixed quantity treated daily.
31·7 hours	A. 3·13	0·73	13·16	15·1	About 100,000.	Partial removal at short intervals.	Run on to land	The samples for analysis series "A" were drawn in January and those for series "B" in August.
	B. —	—	—	—				
24 hours	*1·91*	*0·49*	*6·16*	*13·1*	1,000 to 10,000.	Every 6 months	Lagooned	Experimental process. Fixed quantity treated daily.
15·2 hours	3·46	0·52	5·62	8·4§	—	—	Spread over adjacent land.	
24 hours	*1·52*	*0·49*	*7·80*	*25·7* C.	10,000 to 100,000.	End of 2 years	Lagooned	Experimental process (large scale); compare series "C" with contact effluent and series "P" with percolating filter effluent.
	1·95	*0·44*	*6·07*	*17·8* P.				
15 hours	*2·74*	*0·37*	*8·69*	*10·8* app.	10,000 to 100,000.	—	Sent to sea	
22·0 hours	0·52	0·17	2·84	3·2*	1,000 to 10,000.	After 7½ years	Lagooned	
30·0 hours	3·74	0·67	10·92	5·3	10,000 to 100,000.	Every 6 months	Pressed and sold to farmers.	Experimental process. Fixed quantity treated daily.
24 hours	*1·06*	*0·37*	*4·19*	—	—	At long intervals	Lagooned	Experimental process.
13·6 hours	1·79	0·37	3·88	7·1§	10,000 to 100,000.	No sludge removed for over 10 years.	—	
26 hours	2·86	0·49	6·51	5·3	10,000 to 100,000.	After 21 months	Lagooned	Experimental process. Fixed quantity treated daily.

samples, drawn, in dry weather, according to rate of flow. The figures of analysis given in italics are, as a rule, averages of in italics having been obtained with "weak" permanganate must be multiplied by 1·6 to compare approximately "strong" permanganate. * Average analysis of Saltley sewage only. † Not quite dry weather samples. ‡ This figure two samples only.

TABLE IV.—CHEMICAL PRECIPITATION,

No.	Place.	System of Sewerage.	Population draining to Works.	Dry weather flow of Sewage (gallons).	Nature of Sewage.	Analysis of Sewage (Parts per 100,000). Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli per c.c.
32	Calverley -	Combined	2,300	12,000	Strong domestic (mainly slop water).	11·82	1·80	29·55	31·90	At least 100,000
33	Chorley -	Ditto	27,000	900,000	Domestic	4·20	1·01	12·38	31·40	At least 100,000
34	Guildford -	Partially separate.	16,000	400,000	Domestic with brewery waste.	7·38	2·10	21·33	37·1	At least 100,000
6	Hendon, High Level.	Ditto	23,500	650,000	Domestic	† 3·0 app.	† 1·0 app.	11·01	*23·9	About 100,000
35	Hendon, Low Level.	Ditto	23,500	300,000	Domestic with laundry waste.	† 4·0 app.	† 1·3 app.	17·55	*33·4	About 100,000
36	Heywood -	Combined	23,500	630,000	Domestic with trade waste.	*3·37*	*0·83*	*7·89*	*29·0*	At least 100,000
37	Horfield -	Partially separate.	2,500	38,000	Domestic with laundry waste.	3·80	1·02	9·39	35·6	At least 100,000
38	Huddersfield	Combined	100,000	7,000,000	Trade sewage.	*1·00*	*0·60*	*10·40*	*40·0*	
39	Kingston -	—	53,454	2,750,000	Domestic with trade waste.	3·85	0·86	10·66	31·0	At least 100,000
40	Leeds -	Combined	450,000	15,500,000	Trade sewage	*1·84* *2·07*	*0·60* *0·76*	*10·8* *12·1*	*60·1* G. *62·4* P.	About 100,000
41	Maidstone -	Partially separate.	34,000	1,500,000	Domestic with brewery and tannery waste.	3·51	1·52	21·03	*34·8	At least 100,000
42	Normanton	Combined	12,600	175,000	Domestic (mainly slop water).	6·95	1·50	29·25	*55·0	At least 100,000
43	Rochdale -	Ditto	52,000	1,310,000	Domestic with wool scouring liquor.	4·16	1·29	26·55	*36·7	At least 100,000
44	Sheffield -	Ditto	400,000	14,500,000	Trade sewage.	*2·61*	*0·76*	*7·08*	*50·2*	—
45	Withnell -	Partially separate.	1,650	15,000	Strong domestic (mainly slop water).	5·35	1·23	21·19 17·22	33·9 A. 19·6 B.	At least 100,000
46	York - -	—	80,000	—	Domestic with trade waste.	2·58	0·82	13·83	21·2	At least 100,000

NOTE.—The figures of analysis given in ordinary type are, as a rule, averages of three sets of twenty-four hourly number of chance samples drawn in all weathers. All figures for "oxygen absorbed in four hours" given in italics, having been four hours" given in ordinary type, the latter having been obtained with "strong" permanganate. * These were not quite dry

FOLLOWED BY SETTLEMENT.

Precipitant used and quantity added in grains per gallon.	Rate of flow in tanks (expressed in time taken to fill tanks in dry weather).	Analysis of precipitation liquor (parts per 100,000). Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hours.	Suspended Solids.	B. Coli. per c.c.	Tanks cleaned.	Method of Disposing of Sludge.	Remarks.
Alumino-ferric 17·5 grains based on dry weather flow.	47 hours	9·64	1·11	11·94	11·80	At least 100,000	No. 1 every month. No. 2 every two months.	Lagooned. Taken by farmer when dry.	
Alumino-ferric 9·0 grains on average flow.	Quiescent for 1–2 hours.	3·82	0·55	4·77	3·11	10,000 to 100,000	Every two fillings.	Pressed and sold to farmers.	
Alumino-ferric 8·0 grains on average flow.	10½ hours	7·34	1·33	20·04	14·6	At least 100,000	Every two days.	Pumped into trenches and covered over.	
Alumino-ferric 5 grains on average flow.	12 hours	3·62	0·42	5·50	*6·1	About 100,000	Twice a week to once a month according to position of tank in the series.	Pumped into trenches on land.	
Alumino-ferric 6·0 grains on average flow.	12 hours	4·88	0·76	7·25	*4·1	About 100,000			
Alumino-ferric 8·0 grains on average flow.	24 hours	*1·99*	*0·42*	*3·38*	*4·0*	About 100,000	—	Pressed and taken by farmers.	
Alumino-ferric 5·0 grains on average flow.	17 hours	3·31	0·32	3·12	2·5	10,000 to 100,000	Every two days.	Pressed and taken by farmers.	
Lime and copperas.	6 hours	*1·21*	*0·33*	*5·74*	*7·0*	—	—	Lagooned	
Alumino-ferric blood, charcoal, and clay, 50 grains on average flow.	6½ hours	3·64	0·44	5·17	1·5	10,000 to 100,000	First tanks every six days, second and third once a fortnight.	Pressed, dried and sold as manure.	
Lime 3 grains on average flow.	4 hours 12 hours	*1·68* *2·00*	*0·31* *0·32*	*4·61* *4·16*	*11·1* G. *6·3* P.	—	—	Lagooned	Experimental process Analysis G. refers to the general precipitation liquor and Analysis P. is for comparison with percolating filter effluent
Lime 5 grains on average flow.	1½ hours	3·53	0·99	10·71	*14·0	—	Every two weeks.	Pressed and taken by farmers.	
Alumino-ferric 6–7 grains on dry weather flow.	14½ hours	4·90	0·68	10·32	*14·0	10,000 to 100,000	Every week	Lagooned and taken by farmers when dry.	
Alumino-ferric 7·3 grains Vitriol 4·7 grains on average flow.	14½ hours	4·20	0·66	13·17	*7·8	1,000 to 10,000	Every three or four weeks.	Pressed and taken by farmers.	
Lime	Quiescent for 45 minutes.	*1·09*	*0·15*	*2·80*	*4·8*	—	—	Lagooned	
Alumino-ferric 15 grains on dry weather flow.	Quiescent for several hours.	— 4·35	— 0·47	— 7·95	— 2·0 app. B.	100 to 1,000	Every one or two fillings.	Lagooned	Analysis A. is an average analysis of Withnell sewage. Analysis B. is an average analysis made on samples of sewage drawn for comparison with the precipitation liquor.
Alumino-ferric 5·7 grains. Lime 4·3 grains on average flow.	7 hours	2·63	0·54	7·76	8·9	About 10,000	Every four days.	Pressed and buried thick under layer of soil.	

samples drawn, in dry weather, according to rate of flow. The figures of analysis given in italics are, as a rule, averages of a large obtained with "weak" permanganate, must be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in weather samples. † These figures are inferred. ‡ Grit is not included in this figure.

TABLE V.—CONTACT

No.	Place.	Number of contacts given.	Material.	Size of Material.	Depth of Material.	Distribution.	Average number of fillings per day. Primary beds only.	Rate of treatment per cube yard per day. Whole area included.
	CRUDE SEWAGE.							Gallons.
1	Hampton	3	Clinker	Primary—coarse Secondary—medium. Tertiary—very fine	4 ft.	None on primary beds, half pipes and grips on secondary and tertiary beds.	About 3	43 Based on dry weather flow.
2c	Leeds	2	Coke	Primary—coarse Secondary—medium.	Primary, 5ft. Secondary, 6 ft.	None	Ditto	About 32
3	Maidstone	2	Clinker	Primary—coarse Secondary—fine	Primary, 3 ft. 4 in. Secondary, 4 ft. 4 in.	Half pipes	0·86	23·7
4	Newton	1	Ditto	Medium to coarse	3 ft. 6 in.	Troughs	1·7	91
5	Withnell	2	Ditto	Primary—rather coarse. Secondary—medium.	Primary, 5 ft. Secondary, 3 ft. 6 in.	Ditto	0·71	18·2
	SETTLED SEWAGE.							
8	Halton	2	Primary—coke, clinker and stone. Secondary—coke.	Primary } rather coarse Secondary }	Primary 4 ft. 3 in. Secondary, 3 ft. 3 in.	Ditto	About 4	80
13	Oldham	1	Clinker	Medium to coarse	3 ft. to 1 ft. 6 in.	Troughs	—	About 100
11	Oswestry	2	House cinders	Primary } medium to coarse Secondary }	All beds, 4 ft. 6 in.	Ditto	4–5	51·4
12	Sheffield	2	Clinker	Primary } medium to fine. Secondary }	3 ft.	Grips in material.	3	60
	SEPTIC TANK LIQUOR.							
15	Andover	1	Ditto	Medium to fine	4 ft.	Half pipes	1·4	115 Based on dry weather flow.
17	Burnley	2	Ditto	Primary—coarse Secondary—fine	- -	Troughs	2	45
19	Exeter, (St. Leonards).	1	Clinker and coke	Fine to medium	5 ft.	Half pipes	3	105
20	Exeter (Main works).	1	Clinker	Medium	4 ft. 6 in.	Ditto	2	55 Based on dry weather flow.
21	Guildford	2	Burnt ballast or clinker.	Primary—rather coarse. Secondary—rather fine.	2 ft. 6 in.	Grips in material.	2	22·7

NOTE.—(a) All figures for "oxygen absorbed in four hours" given in italics, having been obtained with "weak" permanganate, the latter having been obtained with strong permanganate. (b) The figures for albuminoid
* The figures are approximate. † These figures are averages of

Analysis of final effluents.

Parts per 100,000.															
Ammoniacal Nitrogen.		Albuminoid Nitrogen.		Oxidised Nitrogen.		Oxygen absorbed in 4 hours.		Incubator test. (smell.)		Suspended Solids.		Dissolved oxygen taken up in 24 hours.		B. Coli per c.c.	Condition of Filters.	Remarks.
Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.			
–	0·71	–	0·11	–	2·64	–	1·31	–	12 + in 12.	–	Trace	–	0·38	About 1,000 to 100,000.	Crude sewage clogged primary beds in one year, and partially settled sewage in 4 years.	
–	*0·44*	–	*0·09*	–	*0·37*	–	*0·75*	–	–	–	*2·5*	–	–	—	Primary bed lost capacity seriously in first 4 months.	Experimental process. Large scale. Fixed quantity treated daily.
–	0·92	–	0·22	–	1·23	–	2·52	–	7 + in 8.	–	1·31	–	–	10,000 to 100,000.	Primary bed in good order after 5 years.	Experimental process. Fixed quantity treated daily
3·40	*0·59	–	*0·37	Trace	0·16	6·79	5·78	2 – in 2.	6 – in 6.	8·5	*6·9	–	More than 6·2	About 100,000.	Beds seriously clogged on surface after about 5 years.	
0·89	†0·63	0·41	*0·12	0·0	2·48	3·86	1·71	3 – in 3.	3 + in 3.	5·5	About 1·0	–	*0·66	At least 100,000.	Primary beds becoming seriously clogged after 5 years.	Experimental process. Fixed quantity treated daily.
–	*1·54	–	*0·23	–	†0·88	–	2·52	–	2 + in 5.	–	About 3·0	–	–	About 10,000 to 100,000.	Primary beds clogged after 4 years.	
–	*1·51*	–	*0·23*	–	*0·31*	–	*0·99*	–	–	–	*5·1*	–	–	—	—	—
–	0·56	–	0·18	–	1·16	–	1·76	–	8 + in 10.	–	About 2·0	–	*0·72	About 10,000.	Primary beds clogged up after about 3 or 4 years	
–	*0·34*	–	*0·06*	–	*1·64*	–	*0·60*	–	–	–	*1·8*	–	–	—	—	Experimental process.
4·82	4·10	*0·60	*0·52	0·0	*0·43	4·26	4·02	3 in 3.	1 + in 11.	9·8	9·6	–	*2·77	About 10,000 to 100,000.	Material had to be washed after about 4 years.	
–	–	–	*0·06*	–	*1·06*	–	*0·78*	–	–	–	–	–	–	—	Material in No. 5 primary bed had to be washed after 3¼ years.	
1·00	0·55	–	0·11	1·49	*1·69	0·85	1·08	3 + in 3.	6 + in 6.	0·9	About 0·6	–	*0·62 ‡	About 100,000.	Material showing signs of clogging after 9 years' work.	
3·12	1·61	†0·17	0·31	*0·28	*1·63	3·67	4·42	3 – in 3.	7 + in 14.	4·6	5·5	–	*1·69	About 100,000.	Beds had lost nearly half their water capacity after about 3 years.	
	‡1·08	–	†0·32	–	1·22	–	2·77	–	4 + in 7.	–	About 1·0	–	–	About 100,000.	Primary beds had lost nearly ⅓ of their capacity after about 4 years' work	Practically fixed quantity treated daily.

must be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in four hours" given in ordinary type.
Nitrogen in ordinary type may probably be rather too high in the case of some of the effluents.
* Two samples only. ‡ These are averages of three samples only.

TABLE V.—CONTACT

No.	Place.	Number of contacts given.	Material.	Size of material.	Depth of Material.	Distribution	Average number of fillings per day. Primary beds only.	Rate of treatment per cube yard per day. Whole area included.
SEPTIC TANK LIQUOR (*continued*).								
22	Hartley Wintney.	1	Clinker	Fine	4 ft.	Half pipes	2·0	Gallons. 73 Based on dry weather flow.
23	Huddersfield	2	Ditto	Primary—coarse Secondary—medium	Primary, 3 ft. 9 in. Secondary, 2 ft. 11 in.	Grits in material.	2·5	71
25c	Leeds	2	Primary—clinker Secondary—coke.	Primary—medium Secondary—medium.	Primary 5 ft. Secondary, 6 ft.	Ditto	1·5	45
26	Manchester	1	Clinker	Medium	3 ft. 4 in.	Ditto	2 to 3	77
29	Sheffield	2	Ditto	Primary—rather coarse. Secondary—rather fine.	3 ft.	Ditto	3	About 60
30	Slaithwaite	1	Ditto	Medium	5 ft.	Troughs	1·5	62
PRECIPITATION LIQUOR.								
32	Calverley	1	Ditto	Fine to coarse	3 ft.	Ditto	About 0·7	30 Based on dry weather flow.
6 & 35	Hendon	1	Pan breeze, burnt ballast and broken brick.	Fine to medium	5 ft.	Half pipe	2·5	—
36	Heywood	1	Sand Ashes Coke	Very fine Medium Coarse.	4 ft. 3 in.	Troughs	3	174
39	Kingston	1	Clinker or coke	Medium	3 ft.	Ditto	4	250
40	Leeds	1	Clinker	Medium	3 ft. 6 in.	None	3	—
38	Huddersfield	2	Ditto	Primary—medium Secondary—fine medium.	3 ft. 3 in.	—	2·5	100

NOTE.—(*a*) All figures for "oxygen absorbed in four hours" given in italics, having been obtained with "weak" permanganate, the latter having been obtained with strong permanganate. (*b*) The figures for albuminoid

* These figures are approximate. † These figures are averages of two samples only. ‡ These are averages

BED FILTRATION—*continued.*

Analysis of final effluents. Parts per 100,000.																
Ammoniacal Nitrogen.		Albuminoid Nitrogen.		Oxidised Nitrogen.		Oxygen absorbed in 4 hours.		Incubator test. (smell.)		Suspended Solids.		Dissolved oxygen taken up in 24 hours.		B. Coli. per c.c.	Condition of Filters.	Remarks.
Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.			
1·16	3·20	0·27	0·38	1·22	1·02	3·14	3·26	3+ in 3.	2+ in 7.	3·3	7·2	–	*2·36	About 1,000 to 10,000.	Beds seriously clogged after about 5 years.	
–	*0·18*	–	*0·15*	–	*0·49*	–	*1·53*	–	–	–	*1·8*	–	–	—	Primary bed lost 74 per cent. of its capacity after 4½ years.	Experimental process.
–	*0·28*	–	*0·05*	–	*1·75*	–	*0·51*	–	–	–	*0·3*	–	–	About 1,000 to 10,000.	Primary bed lost 80 per cent. of its capacity after 4 years.	Experimental process.
–	*1·62*	–	*0·15*	–	*0·30*	–	*2·73*	–	–	–	*5·4*	–	§41 %	About 1,000 to 10,000.	—	
–	*0·48*	–	*0·07*	–	*1·21*	–	*0·72*	–	–	–	–	–	‖0·43	—	—	Experimental process.
–	‡0·84	–	‡0·17	–	0·57	–	2·15	–	2+ in 7.	–	About 2·0	–	1·52	About 10,000.	Surface material badly clogged after 4 years.	Practically fixed quantity treated daily.
–	2·67	–	*0·30	–	0·33	–	3·57	–	4+ in 13.	–	8·8	–	*1·14	About 1,000 to 10,000,	Beds still in good order after 10 years' work.	
1·72	–	†0·16	–	1·22	–	2·07	–	3+ in 3.	–	Trace	–	–	–	About 1,000 to 10,000,	Beds still in good order after 6 years.	
–	*1·87*	–	*0·18*	–	*0·46*	–	*0·96*	–	–	–	–	–	–	—	Bed still good after 10 years. Top ½ inch of sand is taken off once a month and allowed to weather.	
1·96	1·45	†0·19	0·12	1·22	1·53	0·84	0·96	3+ in 3.	7+ in 7.	About 1·0	About 1·0	–	0·18	About 1,000 to 10,000.	Coke bed retains 20 per cent. of its empty tank capacity after nearly 8 years. Clinker bed retains 32 per cent. after nearly 4 years.	
–	*1·47*	–	*0·19*	–	*0·07*	–	*1·45*	–	–	–	*6·4*	–	–	—	Bed lost capacity rapidly owing to consolidation of material.	
–	*0·09*	–	*0·08*	–	*0·86*	–	*1·10*	–	–	–	*2·1*	–	–	—	No. 10 bed lost 68 per cent. of its capacity in 6 years.	

must be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in four hours" given in ordinary type, nitrogen in ordinary type may probably be rather too high in the case of some of the effluents.
of three samples only. § Percentage of dissolved oxygen taken up in forty-eight hours at 80°F. ‖ At 60°F.

TABLE VI.—PERCOLATING

No.	Place.	Material used in Filters.	Size of Material.	Depth of Material.	Distribution.	How Liquid is delivered to Filter.	Rate of filtration per square yard per day.	Rate of filtration per cube yard per day.
							Gallons.	Gallons.
CRUDE SEWAGE.								
6	Hendon -	Clinker	Medium	8 or 10 feet	Tipping troughs	Continuously	125	About 40
2D	Leeds -	Ditto	Ditto	10 feet	Ditto	Ditto	83	25
2L	Leeds -	Ditto	Very coarse	11½ feet	Sprinkler	Intermittently	200	52
SETTLED SEWAGE.								
7	Clifton -	Cinders or sand and cinders	Fine to coarse Very fine to coarse	4 feet	By fine material	Ditto	20·8 Based on dry weather flow.	15·6
10	Leeds -	Coke	Coarse	9 ft. 6 ins.	Sprinkler	Continuously	200	63
9	Little Drayton.	Granite	Medium	7 ft. 6 ins.	Tipping troughs	Ditto	48·5	19·5
SEPTIC TANK LIQUOR.								
14	Accrington	Coke or clinker	Coarse	9 ft. 3 ins. to 7 feet.	Sprinklers	Ditto	425	140
16	Birmingham	Granite, quartzite, slag, etc.	Coarse	6 feet	Nozzles, etc.	Ditto	165	82·5
18	Caterham -	Coke	Medium to coarse	5 feet	Perforated pipes	Intermittently	51	30·7
23	Huddersfield	Clinker	Coarse	7 feet	Sprinkler	Continuously	258	110
24	Knowle -	Ditto	Ditto	6 feet	Stoddart trays	Ditto	1,000	2,000
25D	Leeds	Coke	Ditto	9 ft. 6 ins.	Sprinkler	Ditto	200	63

NOTE.—(*a*) All figures for "oxygen absorbed in four hours" given in italics, having been obtained with "weak" permanganate, the latter having been obtained with "strong" permanganate. (*b*) The figures for albuminoid

* These figures are approximate. † This analysis

ILTERS

Analysis of Final Effluent (Unsettled).														Condition of Filters.	Remarks.
mmoniacal Nitrogen.		Albuminoid Nitrogen.		Oxidised Nitrogen.		Oxygen absorbed in 4 hours.		Incubator test (by smell).		Dissolved Oxygen taken up in 24 hours.		Suspended Solids.		B. Coli. per c.c.	
Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.		
·06	0·57	0·28	0·13	2·37	3·51	2·65	1·87	3 + in 3.	9 + in 9.	–	*0·62	6·3	5·2	—	No. 2 Filter (8 feet) good after 8 years.	Experimental Duca Filters. Fixe quantity treated daily.
–	*0·19*	–	*0·05*	–	*1·21*	–	*0·34*	–	–	–	–	–	–	About 1,000.	Clogged after 1 month's work.	Ducat Experimental Filter. Fixed quantity treated daily.
–	*0·72*	–	*0·27*	–	*0·35*	–	*3·09*	–	–	–	–	–	*21·0*	About 10,000.	Choked with growth after 21 months.	Experimental "Leeds" Filter. Fixed quantity treated daily.
·80	0·95	0·10	0·20	0·82	1·16	1·10	2·06	3 + in 3.	5 + in 7.	–	0·93	3·3	5·6	100 to 10,000.	Sand filter good after 14 years.	
–	*0·31*	–	*0·13*	–	*1·27*	–	*1·71*	–	–	–	–	–	*12·0*	—	Unchanged after 1 year.	Experimental process. Fixed quantity treated daily.
·78	0·57	0·22	0·18	3·60	4·51	2·92	2·45	3 + in 3.	4 + in 4.	0·74	0·92	10·1	8·0	1,000 to 10,000.	Necessary to wash upper part of material after 3 or 4 years.	
1·07	1·33	0·27	0·25	2·24	1·60	5·08	3·02	4 + in 4.	11 + in 11.	–	*0·96	20·0	8·9	Ditto	Good after 4 to 8 years.	
2·86	–	*0·29*	–	*2·11*	–	*2·58*	–	*all* +	–	–	–	*7·3*	–	—	—	
6·77	8·88	0·42	0·41	8·90	7·95	5·22	5·11	4 + in 4.	7 + in 7.	–	0·80	*3·7	3·8	About 1,000.	Good after 10 years.	Fixed quantity treated daily.
–	†*0·23*	–	†*0·09*	–	†*1·03*	–	†*1·29*	–	–	–	–	–	–	Ditto	Good after 1 year	Experimental process. Fixed quantity treated daily.
3·19	4·07	0·34	0·48	*0·90	0·60	2·70	4·11	3 – in 3.	5 + in 12.	–	*2·28	3·77	3·9	About 100,000.	Good after about 4 years.	
–	*0·51*	–	*0·14*	–	*1·08*	–	*1·60*	–	–	–	–	–	*11·4*	About 1,000.	Good after 4 years' work. Bed twice flushed out with town's water.	Experimental process, Fixed quantity treated daily.

ust be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in four hours," given in ordinary type,
trogen, in ordinary type, may probably be rather too high in the case of some of the effluents.
as made after suspended solids had been settled out.

TABLE VI.—PERCOLATIN

No.	Place.	Material used in Filters.	Size of Material.	Depth of Material.	Distribution.	How Liquid is delivered to Filter.	Rate of filtration per square yard per day.	Rate of filtration pe cube yard per day.
							Gallons.	Gallons.
SEPTIC TANK LIQUOR (*continued*).								
27	Prestolee -	Cinders and gravel	Fine to coarse	5 feet	By fine material	Intermittently	92·7	55·6
28	Rochdale -	Coke	Coarse	9 feet	Sprinkler	Continuously	424	141
31	York - -	Clinker, coke, slag or broken brick.	Ditto.	6 ft. 6 ins. by 7 ft. 8 ins.	Ditto.	Ditto.	360	About 150
PRECIPITATION LIQUOR.								
33	Chorley -	Sand, polarite, and gravel.	Very fine to coarse	3 feet	By fine material	Intermittently	525	525
37	Horfield -	Clinker	Coarse	7 ft. 5 ins.	Stoddart trays	Continuously	478	190
40P	Leeds -	Coke	Ditto.	6 feet	Sprinkler	Intermittently	100	50
42	Normanton-	Sand, polarite, and gravel.	Very fine to coarse	3 ft. 3 ins.	By fine material	Ditto.	—	—
45	Withnell -	Ditto.	Ditto.	3 feet	Ditto.	Ditto.	68·6 Based on dry weather flow	63·5
6 and 35	Hendon -	Coke breeze, burnt ballast, and broken brick.	Fine to coarse	5 feet	Ditto.	Ditto.	—	—

NOTE.—All figures for "oxygen absorbed in four hours" given in italics, having been obtained with "weak" permanganat the latter having been obtained with "strong" permanganate. (*b*) The figures for albuminoid nitrogen i

TERS.—*continued.*

Analysis of Final Effluent (Unsettled).															
moniacal Nitrogen.		Albuminoid Nitrogen.		Oxidised Nitrogen.		Oxygen absorbed in 4 hours.		Incubator test (by smell).		Dissolved Oxygen taken up in 24 hours.		Suspended Solids.		B. Coli. per c.c.	Condition of Filters.	Remarks.
	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.			
13	0·05	0·03	0·02	0·33	0·90	0·31	0·41	3 + in 3.	6 + in 6.	–	*0·04	None	None	100 to 1,000.	Good after 8 years.	
	0·08	–	0·10	–	*2·76	–	2·56	–	5 + in .	–	*0·32	–	7·4	About 100 to 1,000.	Good after 7 years.	Fixed quantity treated daily
10	0·25	0·07	0·15	2·25	2·11	1·17	1·82	3 + in 3.	7 + in 7.		0·32	1·80	5·0	Ditto.	Good after 4 and 6 years.	Ditto.
07	0·56	0·09	0·11	2·35	3·00	1·03	0·98	3 + in 3.	12 + in 12.	–	0·18	Trace	Trace	About 1,000 to 10,000.	Good after 12 years.	
39	2·26	0·15	0·23	2·19	*1·19	1·60	2·47	3 + in 3.	12 + in 12.	–	*0·54	3·65	7·0	About 10,000.	Good after 5 years.	
	0·34	–	*0·07*	–	*1·66*	–	*0·67*	–	–	–	–	–	*2·0*	—	Good after 1 year.	Experimental process. Fixed quantity treated daily. Filter worked subsequently at double this rate with good results.
58	1·42	0·16	0·10	1·33	3·00	1·86	1·27	3 + in 3.	10 + in 11.	–	*0·69	Trace	Trace	About 1,000 to 10,000.	Good after 10 years.	Fixed quantity treated daily.
71	1·68	0·16	0·08	1·62	0·84	1·65	1·29	3 + in 3.	3 + in 4.	0·49	0·28	Trace	Trace	About 100 to 1,000.	Good after 6 and 12 years.	
28	–	0·09	–	1·56	–	1·48	–	3 + in 3.	–	–	–	Trace	–	About 1,000.	Good after 7 years.	

st be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in four hours," given in ordinary type iinary type, may probably be rather too high in the case of some of the effluents. * These figures are approximate.

TABLE VII.—PERCOLATING FILTERS.

SUPPLEMENTARY TABLE SHOWING ANALYSIS OF *Settled* EFFLUENTS.

No.	Place.	How Effluent from Continuous Filter is settled.	Analysis of Settled Effluent. Parts per 100,000.														Remarks.
			Ammoniacal Nitrogen.		Albuminoid Nitrogen.		Oxidized Nitrogen.		Oxygen absorbed in 4 hours.		Incubator Test (by smell).		Suspended Solids.		Dissolved Oxygen taken up in 24 hours.		
			Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	Hourly.	Chance.	
CRUDE SEWAGE.																	
2	Leeds - -	Tank.	–	*0·61*	–	*0·16*	–	*0·44*	–	*1·47*	–	–	–	*6·1*	–	–	Experimental "Leeds" Filter. Fixed quantity treated daily.
		Fine filtered.	–	*0·52*	–	*0·10*	–	*0·59*	–	*0·93*	–	–	–	*3·5*	–	–	
SETTLED SEWAGE.																	
10	Leeds - -	Filtered through fine material.	–	*0·27*	–	*0·07*	–	*1·40*	–	*0·90*	–	–	–	*6·0*	–	–	Experimental process. Fixed quantity treated daily.
SEPTIC TANK LIQUOR.																	
14	Accrington -	Tanks. One hour continuous flow settlement.	0·58	0·91	0·06	0·16	2·20	1·69	2·69	2·36	3 + in 3	13 + in 13	3·60	5·49	–	0·48*	
16	Birmingham -	Dortmund Tanks.	*3·12*	–	*0·17*	–	*1·70*	–	*2·01*	–	*all* +	–	*1·8*	–	–	–	Large scale.
18	Caterham -	Passed through tank filled with coarse flints.	6·84	9·21	0·33	0·37	8·52	6·67	3·77	4·03	4 + in 4	11 + in 11	0·8	1 to 2	–	0·60	Only one-third of sewage filtered. Fixed quantity treated daily
25b	Leeds - -	Settled, or filtered through fine material.	–	*0·51*	–	*0·08*	–	*1·06*	–	*0·70*	–	–	–	*3·0*	–	–	Experimental process. Fixed quantity treated daily.
28	Rochdale -	Tanks. Two hours continuous flow settlement.	6·47	0·08*	0·13	0·08†	2·18	2·46*	1·68	1·46	3 + in 3	8 + in 8	2·2	4·50	–	0·29*	Experimental process. Fixed quantity treated daily.

NOTE. (*a*) The figures for oxygen absorbed in four hours given in italics, having been obtained with "weak permanganate," must be multiplied by 1·6 to compare approximately with the figures for "oxygen absorbed in four hours," given in ordinary type, the latter having been obtained with "strong" permanganate.

(*b*) The figures for albuminoid nitrogen in ordinary type may probably be rather too high in some of the above effluents.

* These figures are approximate. † This is an average of only two samples.

PART III.—PURIFICATION OF SEWAGE BY TREATMENT ON LAND.

Introductory Remarks.

192. There can be no doubt that, where the soil is suitable and the area of land sufficient, the organic matters in sewage can be thoroughly oxidised by land treatment.

This fact is well established, not only by investigations made by earlier Commissions, but also by wide general experience.

The investigations of earlier Commissions did not, however, extend to the bacteriological side of the question, and for this reason, and in order to compare the treatment of sewage on land with its treatment by other methods, we considered it necessary to examine the working of some sewage farms.

Prior to commencing our investigations, a large number of sewage farms were visited, and we ultimately selected, for systematic observation, the following farms :—

Aldershot Camp	Sand.
Croydon (Beddington)	Gravelly loam.
Nottingham	Light loam.
Cambridge	„ „
South Norwood	Heavy loam and clay.
Leicester	„ „ „ „
Altrincham	Peaty soil and sand.
Rugby (high level farm)	Heavy loam.

Some few samples of effluent were also taken from, and some observations made at, Luton (chalk), Worsley (peat and gravel), Hemsworth (clayey soil), Derby County Asylum (stiff soil overlying red clay), Lindfield (clayey soil), Sandhurst (sandy soil), and Woking (Bagshot sand).

Our investigations extended over a period of more than two years, and detailed particulars in regard to them are contained in the Reports made to us by our officers, which were published as supplementary volumes to our Fourth Report.

Comparison of Effluents from Land and from Artificial Filters.

193. Judged by chemical analysis, both classes of effluent possess similar qualities.

As regards the eight farms which we have had under observation, the average purification, calculated on the atmospheric oxygen used up, and giving credit for the oxygen contained in the effluent in the form of nitrate, was about 98 per cent. It would have been rather higher than this if the suspended solids had been eliminated from those effluents which contained them.

As regards seven contact bed plants, which we have examined, the average purification on the same basis, but eliminating the suspended solids, was 93·4 per cent.

As regards six installations of percolating filters, our analyses show that the average purification, after eliminating the suspended solids, was 99·4 per cent.

The following tables, A and B, give the average figures of the chemical analyses of the sewage and effluents at the eight farms; Table C gives certain percentages for each farm.

Table A—Table of Average Figures showing the Chemical

Name of Farm.	Altrincham.	Aldershot Camp.	Croydon (Beddington).
Number of Samples of Sewage Examined.	4 Chance samples of sewage and 5 of lagoon liquor.	9 Chance samples and 3 sets of hourly samples.	* 5 to 7 Chance samples and 7 sets of hourly samples.
Parts per 100,000 *by weight.*	Average.	Average.	Average.
Total Nitrogen :—Chance samples.	2·06 to 5·01 = **3·56**	12·45 to 24·89 = **17·6**	6·82 to 13·42 = **9·50**
Hourly samples.	—	12·31 to 14·24 = **13·3**	6·42 to 7·59 = **7·18**
Ammoniacal nitrogen : — Chance samples.	0·69 to 3·69 = **2·29**	8·26 to 16·94 = **12·30**	4·15 to 9·71 = **7·34**
Hourly samples.	—	7·60 to 8·21 = **7·87**	4·18 to 5·11 = **4·50**
Total organic nitrogen :—Chance samples.	0·69 to 3·69 = **2·29**	3·39 to 9·10 = **5·35**	2·03 to 4·06 = **3·37**
Hourly samples.	—	4·25 to 6·18 = **5·06**	1·31 to 2·88 = **2·07**
Albuminoid nitrogen : — Chance samples.	0·20 to 1·14 = **0·62**	2·05 to 3·63 = **2·77**	0·99 to 2·36 = **1·72**
Hourly samples.	—	1·54 to 1·69 = **1·62**	0·59 to 1·12 = **0·91**
"Oxygen absorbed" from permanganate at 26·7° C. (80° F.) *in four hours* :—Chance samples.	2·29 to 6·98 = **5·22**	20·68 to 38·47 = **25·94**	7·91 to 18·73 = **13·70**
Hourly samples.	—	19·54 to 22·40 = **20·79**	7·85 to 17·45 = **12·48**
Chlorine :—Chance samples.	7·22 to 12·88 = **9·43**	8·90 (?) to 13·98 = **11·38**	5·70 to 10·50 = **8·15**
Hourly samples.	—	11·36 to 19·78 = **14·98**	7·86 to 9·22 = **8·34**
Solids in Suspension (gravimetrically) :—Hourly samples.	—	32·0 to 39·8 = **36·6**	21·2 to 53·0 = **34·5**
"Cellulose" in Solids in Suspension :—Hourly samples.	—	9·0 to 12·68 = **10·79**	—
Parts per 100,000 *by Volume.*			
Solids in Suspension, as determined by Centrifuge :—Chance samples.†	27 to 99 = **72** 2 sewages and 3 lagoon liquors.	—	—
Hourly samples.†	—	148 to 216 = **173**	173 to 356 = **218**
*Ratio of Solids in Suspension to Centrifuge solids : — Hourly samples.	—	1 : 3·9 to 1 : 5·4 } = **1 : 4·7**	1 : 4·8 to 1 : 8·2 } = **1 : 6·6**
Ratio of "Celluloses" to Suspended Solids (grav.) :—Hourly samples.	—	1 : 8·1 to 1 : 11.2 } = **1 : 9·7**	1 : 3·6 to 1 : 6·2 } = **1 : 4·8**

*Note.—This is a comparison of a figure expressing weight with one expressing volume.

†These figures express the *volumes* of the muds.

Composition of the Sewages at the selected Sewage Farms.

Cambridge. 5 Chance samples and 3 sets of hourly samples.	Leicester. 5 Chance samples and 3 sets of hourly samples.	Nottingham. 4 Chance samples and 3 sets of hourly samples.	Rugby. 8 Chance samples and 3 sets of hourly samples.	South Norwood. 4 to 7 Chance samples and 7 sets of hourly samples.
Average.	Average.	Average.	Average.	Average.
1·50 to 11·52 = **3·94**	2·90 to 8·61 = **5·57**	4·68 to 7·86 = **6·39**	2·80 to 14·94 = **9·95**	3·52 to 10·84 = **7·07**
5·60 to 5·80 = **5·71**	7·32 to 9·16 = **8·12**	7·53 to 7·82 = **7·69**	9·39 to 9·99 = **9·65**	4·46 to 5·63 = **5·20**
0·89 to 7·31 = **2·41**	2·90 to 8·61 = **5·57**	3·21 to 5·32 = **3·92**	1·95 to 11·21 = **7·37**	5·35 to 7·60 = **6·50**
3·77 to 3·85 = **3·82**	7·32 to 9·16 = **8·12**	3·08 to 4·53 = **3·98**	5·74 to 6·46 = **6·11**	3·15 to 4·05 = **3·54**
0·39 to 4·09 = **1·29***	1·18 to 2·41 = **1·68***	1·47 to 4·24 = **2·42***	1·61 to 5·57 = **2·54**	2·04 to 3·24 = **2·55**
1·73 to 1·95 = **1·88**	2·10 to 2·53 = **2·34**	2·56 to 4·21 = **3·15**	2·87 to 3·55 = **3·29**	1·02 to 1·90 = **1·49**
0·28 to 1·52 = **0·62**	0·66 to 1·70 = **1·11**	1·18 to 2·63 = **1·77**	0·40 to 2·84 = **1·49**	0·98 to 1·23 = **1·07**
0·89 to 0·96 = **0·91**	0·97 to 1·44 = **1·19**	1·17 to 1·99 = **1·45**	1·56 to 1·80 = **1·73**	0·55 to 1·04 = **0·67**
2·07 to 17·81 = **6·99**	7·77 to 16·41 = **12·45**	10·97 to 25·06 = **17·64**	3·55 to 33·31 = **15·0**	6·74 to 20·08 = **11·40**
9·49 to 10·68 = **10·08**	20·28 to 24·83 = **22·35**	21·03 to 26·29 = **23·12**	17·55 to 19·18 = **18·44**	5·43 to 9·77 = **7·71**
4·95 to 10·30 = **6·37**	3·51 to 11·94 = **8·10**	9·66 to 23·42 = **16·35**	4·86 to 18·30 = **11·68**	7·28 to 8·88 = **7·87**
7·90 to 8·74 = **8·45**	12·50 to 13·84 = **13·38**	11·25 to 15·36 = **13·68**	9·36 to 10·46 = **9·99**	7·08 to 8·00 = **7·45**
23·8 to 28·6 = **26·5**	33·6 to 34·8 = **34·1**	34·4 to 79·2 = **51·9†**	43·0 to 50·6 = **47·3**	9·6 to 38·2 = **21·9**
3·84 to 5·08 = **4·48**	6·56 and 5·80 = **6·18**	5·32 to 15·08 = **8·88†**	5·88 to 7·92 = **7·22**	—
—	—	—	—	—
146 to 176 = **160**	160 to 261 = **196**	—	258 to 345 = **304**	80 to 245 = **139**
1 : 5·5 to 1 : 6·5 = **1 : 6·0**	1 : 4·8 to 1 : 7·5 = **1 : 5·8**	—	1 : 6·0 to 1 : 7·1 = **1 : 6·4**	1 : 4·7 to 1 : 9·1 = **1 : ·6**
1 : 5·6 to 1 : 6·2 = **1 : 5·9**	1 : 5·3 to 1 : 5·8 = **1 : 5·6**	1 : 5·3 to 1 : 6·7 = **1 : 6·2**	1 : 6·1 to 1 : 7·3 = **1 : 6·6**	—
* This figure is possibly too low.	* This figure is possibly too low.	*This figure is probably too low. †These figures are probably higher than the normal.		

TABLE B.—TABLE WITH SOME OF THE AVERAGE FIGURES SHOWING THE CHEMICAL

NAME OF FARM.	ALTRINCHAM.	ALDERSHOT CAMP.	CROYDON (BEDDINGTON.)
Number of samples of effluents examined.*	14 to 16	16 to 18	15 to 16 (Of the final effluents two were over 2 fields only).
Parts per 100,000 *by weight.*	Average.	Average.	Average.
Total nitrogen	1·36 to 4·99=**2·22**	3·69 to 8·99=**6·0**	1·02 to 3·49=**2·20**
Ammoniacal nitrogen	0·65 to 1·87=**1·23**	0·91 to 4·98=**1·85**	0·23 to 3·10=**1·48**
Albuminoid nitrogen	0·07 to 0·25=**0·13**	0·12 to 0·47=**0·26**	0·06 to 0·23=**0·14**
Total organic nitrogen	0·10 (?) to 0·45=**0·26**	—	0·09 to 0·55=**0·26**
Nitric + nitrous nitrogen	0·0 to 3·64=**0·76**	0·0 (?) to 5·97=**3·21**	0·03 to 1·43=**0·37**
"Oxygen absorbed" from permanganate at 26·7° C. (80° F.) *in four hours.*	0·92 to 2·65=**1·75**	1·02 to 5·68=**2·72**	0·90 to 2·09=**1·41**
Incubator test (as judged by smell).	**81**% passed (16 samples tested.)	**89**% passed (18 samples tested.)	**73**% passed (15 samples tested.)
* Some of the effluents were subjected to more tests than others.			

TABLE C.—TABLE SHOWING APPROXIMATELY THE PERCENTAGE CHEMICAL PURIFICATION (a) ALBUMINOID NITROGEN AND (b)

NAME OF FARM.	ALTRINCHAM.	ALDERSHOT CAMP.	CROYDON (BEDDINGTON).
(a) Calculated on Albuminoid nitrogen.	**79**%* (On Chance samples of sewages and lagoon liquors together.)	**94**% on Chance samples.	**92**% on Chance samples.
		84% on Hourly samples.	**89**% on Hourly samples.
(b) Calculated on "Oxygen absorbed" from permanganate at 26·7° C. (80° F.) *in four hours.*	**67**%*	**90**% on Chance samples.	**90**% on Chance samples.
		87% on Hourly samples.	**89**% on Hourly samples.
	*This calculation is very approximate and of doubtful value.		

Composition of the Final and General Effluents at the selected Sewage Farms.

Cambridge.	Leicester.	Nottingham.	Rugby.	South Norwood.
17 to 18	8 to 13	13	16 to 19	11 effluents (total nitrogen and "oxygen absorbed"); 6 effluents (ammoniacal and albuminoid nitrogen). These include three 2-field effluents.
Average.	Average.	Average.	Average.	Average.
1·48 to 3·19 = **2·09**	1·84 to 3·64 = **2·53**	1·41 to 3·45 = **2·27**	1·39 to 2·96 = **2·31**	0·55 to 2·83 = **2·30**
0·22 to 1·31 = **0·65**	0·59 to 2·81 = **1·65**	0·01 to 0·29 = **0·13**	0·97 to 2·81 = **1·62**	0·02 to 1·55 = **0·87**
0·04 to 0·18 = **0·09**	0·07 to 0·35 = **0·20**	0·01 to 0·10 = **0·03**	0·08 to 0·39 = **0·18**	0·07 to 0·14 = **0·10**
0·04 (?) to 0·42 = **0·21**	0·18 to 0·63 = **0·45**		—	—
0·69 to 2·25 = **1·26**	0·0 to 1·73 = **0·51**	1·25 to 3·29 = **2·06** and 1·24 to 1·71 in four later samples.	0·0 to 1·59 = **0·52**	0·14 to 0·74 (?) = **0·39**
0·16 to 1·31 = **0·81**	1·70 to 4·47 = **2·50**	0·05 to 0·37 = **0·19**	0·72 to 2·16 = **1·41**	0·97 to 1·73 = **1·44**
94% passed (18 samples tested.)	**92**% passed (13 samples tested.)	**100**% passed (17 samples tested.)	**75**% passed (20 samples tested.)	**75**% passed (12 samples tested.)

tion on the various Sewages effected at the selected Farms, as calculated "Oxygen Absorbed" from Permanganate.

Cambridge.	Leicester.	Nottingham.	Rugby.	South Norwood.
85% on Chance samples.	**82**% on Chance samples.	**99**% on Chance samples.	**88**% on Chance samples.	**91**% on Chance samples.
90% on Hourly samples.	**85**% on Hourly samples.	**98**% on Hourly samples.	**89**% on Hourly samples.	**85**% on Hourly samples.
88% on Chance samples.	**80**% on Chance samples.	**99**% on Chance samples.	**91**% on Chance samples.	**87**% on Chance samples.
92% on Hourly samples.	**88**% on Hourly samples.	**99**% on Hourly samples.	**92**% on Hourly samples.	**81**% on Hourly samples.

These Tables show that the strength of the several sewages varied somewhat widely, that the average quality of the effluents from the several farms also varied, and further, that the effluents from the same farm were by no means of uniform quality.

Nottingham was the only farm from which none of the effluents which were examined putrefied upon incubation, and in this case the amount of sewage treated was only 10,750 gallons per acre per day, and very little storm water was treated.

Speaking generally, the effluents which we have examined from artificial filters, as at present constructed and used, are not equal in purity to effluents from the best land, when treating a comparatively small quantity per acre, as at Nottingham ; but effluents from heavy land are often of very inferior quality. Moreover, in the case of some kinds of land, we think that the danger of some of the sewage escaping in an unpurified condition is greater than it is in the case of artificial filters, assuming equally careful management in the two cases.

Bacteriological Character of Effluents.

194. Our investigations have not shown that there is any essential bacteriological distinction between effluents from land and effluents from artificial filters, though effluents from land usually contain fewer micro-organisms than effluents from the artificial filters which are at present in use. The bacteria in the filter effluents can, however, be largely reduced, if this is necessary, by some additional process, such as sand filtration or sterilization,* but for the reasons which are given under the section of this Report dealing with standards, we do not consider that the further process would usually be required.

There is, no doubt, a greater retardation in the passage of an excremental organism through soil than through artificial filters, at the rates of working generally followed in the two cases : this is probably a factor of importance in relation to the life and virulence of certain pathogenic microbes.

The following table gives the average figures for the bacteriological analysis of the final effluents from the eight sewage farms, the figures in brackets shewing the percentage reduction in each case upon the original sewage treated.

	Altrincham.	Aldershot Camp.	Croydon (Beddington).	Cambridge.	Leicester.	Nottingham ‡.	Rugby.	South Norwood.
Total number of bacteria (Gelatine at 20°C.)	263,400 (99%)	183,266 (99%)	1,413,200 (95%)	711,476 (94%)	532,777 (95%)	Frequently less than 1,000.	637,133 (97%)	778,322 (98%)
Total number of bacteria (Agar at 37° C.)	7,275 (99%)	37,308 (99%)	112,000 (97%)	78,327 (94%)	70,500 (95%)	ditto	81,526 (97%)	35,157 (99%)
B. Coli. (†)	At least 100, but less than 1,000 per c.c.	At least 1,000, but less than 10,000 per c.c.	At least 1,000, but less than 10,000 per c.c.	At least 1,000, but less than 10,000 per c.c.	At least 1,000, but less than 10,000 per c.c.	Results variable : but usually very satisfactory in a relative sense.	At least 1,000, but less than 10,000 per c.c.	At least 100, but less than 1,000 per c.c.
B. Enteritidis Sporogenes test.	At least 1, but less than 10 per c.c.	At least 10, but less than 100 per c.c.	At least 10, but less than 100 per c.c.	At least 10, but less than 100 per c.c.	At least 10, but less than 100 per c.c.		At least 10, but less than 100 per c.c.	At least 10, but less than 100 per c.c.
Neutral red broth test (†).	+·01. c.c. −·001 c.c.	+ ·01 c.c. − ·001 c.c.	+·001 c.c. −·0001 c.c.		+·001 c.c. −·001 c.c.		+·01 c.c. −·0001 c.c.	

* *See* Dr. Houston's Report on Sterilization, Appendix IV.

(†) These averages are only approximate.

(‡) The effluents from the Nottingham farm stand in a class by themselves. Some of them were so pure bacteriologically as to resemble drinking water, but still the figures were variable. (For details, cf. Bacteriological Report to the Commission by Dr. A. C. Houston, Fourth Report, Vol. IV., Part III.)

From a bacteriological point of view, the treatment of sewage on land, may, under favourable conditions, reduce the bacteria to quite a remarkable extent. This is shown in the foregoing Table, the reduction both in the total number of bacteria and in the bacteria growing at 37° C. (blood heat) varying from 94 per cent. to 99 per cent. But, notwithstanding this large percentage reduction, it will be seen from Dr. Houston's detailed Report* that the number of microbes of undesirable sort remaining in the effluent may often be very great.

Volume of Sewage which can be Treated on Land.

195. The witnesses whom we examined on the question of the land treatment of sewage were not unanimous as to the basis on which the extent of land required should be calculated. Mr. F. Scudder and Mr. Santo Crimp considered that the basis should be the volume of sewage to be dealt with, but Mr. Baldwin Latham expressed the view that the area of land must be determined by the population draining to the farm, as indicating the strength of the sewage. The quality of the land itself must, of course, always be taken into account. Another factor to which importance was attached was the nature and extent of the preliminary treatment, if any, that the sewage receives before it is put on the land.

Scudder, 570. Santo Crimp, 1573. 4662-4. 4515-16.

Generally speaking, the evidence points to a maximum rate of 30,000 gallons per acre, or 1,000 persons per acre, with the best land, after preliminary treatment, although some witnesses put the rate as high as 60,000 gallons per acre, or 2,000 persons per acre, under similar conditions. With unsuitable land, such as clay, not more than 3,000 gallons per acre can be efficiently treated, even after settlement of the sewage.

Santo Crimp, 1571-2. Strachan, 7629-30. Roscoe, 3741 & 3744. Balfour, 6859-63.

Mr. R. A. Tatton handed in the following Table showing the approximate areas required with different soils :—

Tatton, 6578. 6578.

	Direct to Land.		After Precipitation or Mechanical Settlement.		After Filtration on Bacteria Beds.	
	Ratio of Population per Acre.	Acres per 1,000 Persons.	Ratio of Population per Acre.	Acres per 1,000 Persons.	Ratio of Population per Acre.	Acres per 1,000 Persons.
Broad Irrigation:						
Gravel - - -	100	10	500	2	1,000	1
Light Loam - -	100	10	500	2	750	$1\frac{1}{3}$
Heavy Loam - -	75	$13\frac{1}{3}$	200	5	400	$2\frac{1}{2}$
Chalk - - -	—	—	—	—	—	—
Peat - - - -	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.
Clay - - - -	50	20	100	10	300	$3\frac{1}{3}$
Intermittent Filtration:						
Gravel - - -	150	$6\frac{2}{3}$	500	2	1,000	1
Light Loam - -	150	$6\frac{2}{3}$	500	2	1,000	1
Heavy Loam - -	75	$13\frac{1}{3}$	300	$3\frac{1}{3}$	500	2
Chalk - - -	—	—	—	—	—	—
Peat - - - -	75	$13\frac{1}{3}$	200	5	400	$2\frac{1}{2}$
Clay - - - -	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.	Unsuitable.

196. With regard to the eight sewage farms which we had under our own observation, we give in the appended Table a statement of the nature and extent of the land, the volume dealt with, and a brief summary of our conclusions.

* *See* Vol. IV., part III., presented with our Fourth Report.

Name of Farm.	Nature of Sewage.	Nature of Soil and Subsoil.	Method of Treatment.	Area of Land under Treatment.	Volume treated per acre of land under treatment per 24 hours.	Population per acre of land under treatment.	Observations.
				Acres.	Gallons.		
Aldershot Camp	Domestic	Sand.	Screening, settling tanks and land filtration.	120½	8,300	166	The volume treated per acre was rather too large to yield effluents of the highest class, though the effluents showed a high percentage of purification. The sewage is exceptionally strong at Aldershot.
Altrincham	Domestic	Peaty soil, lying upon sand and gravel.	Settling tank and land filtration.	35	23,000	514	With a somewhat smaller volume of sewage per acre, probably the results would be distinctly good.
Cambridge	Mainly domestic	Sandy loam overlying gravel and sand.	Screening and settling tank and land filtration.	74	30,400	675	The effluents were usually good, but 30,400 gallons per acre was rather too large a volume to yield effluents of the highest class.
Croydon (Beddington) ...	Domestic	Gravelly loam over gravel and sand.	Screening and partly surface irrigation partly filtration.	420	9,500	238	With the method of treatment adopted 9,500 gallons per acre was too large a volume to yield an effluent of the highest class. If the 420 acres of land were laid out solely for filtration, no doubt a larger quantity of sewage could be treated per acre.
Leicester	¾ domestic; ¼ trade refuse	Stiff clayey soil overlying dense clay.	Screening, settling tanks, and surface irrigation and filtration combined.	1,350	5,370	146	The land was treating rather too large a volume per acre to yield effluents of the highest class.
South Norwood	Domestic	Clay soil resting on London clay.	Screening, settling tanks and surface irrigation.	152	4,000	138	The results indicated that rather too large a volume of sewage was put on the land to yield effluents of the highest class.
Nottingham	4/7 domestic, 3/7 trade refuse	Light sandy loam and gravel overlying gravel and sand.	Screening and land filtration.	651	10,750	397	The effluents were uniformly of exceptionally high quality, as judged by chemical analysis.
Rugby	Mainly domestic	Heavy loam overlying stiff clay.	Screening, chemical precipitation, settling tanks, and surface irrigation and filtration combined.	35	8,500	171	The volume treated on the land per acre was too large to yield effluents of the highest class.

197. It will be seen that, at Nottingham, where the soil is well adapted for the purification of sewage, the volume of sewage treated per acre was only 10,750 gallons. The results were exceptionally good, and there is little doubt that a larger volume could have been efficiently purified. At Cambridge, which has the same kind of soil and subsoil, the volume treated per acre, viz., 30,400 gallons, proved rather too large to yield an effluent of the highest class. Taking the two places together, the results may perhaps be regarded as supporting the evidence of witnesses that sewage can be treated at the rate of 30,000 gallons per acre per day on the best soils.

In other cases, where the soil is of a heavy nature and not so well adapted for the purification of sewage, the results again seem to corroborate the views of witnesses as to the volume which can be dealt with on unsuitable soils, viz., not more than 3,000 gallons per acre per 24 hours, if a good effluent has to be produced.

The total acreage of a farm must be relatively much greater when the sewage is purified by surface irrigation than when the method of filtration is employed, and a larger percentage surplus area is also desirable in the former case. We are not able to lay down any rule as to what the ratio of surplus acreage to total acreage should be, but generally speaking, a large surplus area is advisable.

It is true that the larger the total irrigable area, the greater is likely to be the working cost. On the other hand, with good management, the larger the surplus irrigable area, the better is the purification likely to be and—within certain limits—the prospect of profit.

198. The following Tables D, E, F, have been compiled, with a view to showing in some detail, the amount of purification work which was done, per unit area, at the farms which we had under observation.

The figures for strength of sewage, strength of effluent, and units of purification are arrived at on the bases already explained.

TABLE D.

Name of Farm.	Population per acre of land under treatment.	Relative figures of population per acre of land under treatment.	Gallons of sewage treated per acre of land under treatment, per day.	Gallons of sewage treated per square yard of land under treatment, per day.	Relative figures.	Relative oxidizable matter treated per square yard (*i.e.*, gallons per square yard "strength" figure for sewage).	Relative figures.	Ratio of oxidizable matter treated per unit area to volume treated per unit area.	Gallons of sewage per head per day.
Cambridge - - - - -	675	100	30,400	6·28	100	666	100	1 : 9·4	45
Altrincham - - - - -	514	76	23,000	4·75	76	259 (?)	39 (?)	—	44
Nottingham - - - - -	397	59	10,750	2·22	35	404	61	1 : 5·5	27
Beddington - - - - -	238	35	9,500	1·96	30	218	33	1 : 9·0	40
Rugby - - - - - -	171	25	8,500	1·76	28	296	46	1 : 5·8	50
Aldershot Camp - - -	166	25	8,300	1·72	27	332	50	1 : 5·2	50
Leicester - - - - - -	146	22	5,370	1·11	18	180	28	1 : 5·9	37
South Norwood - - - -	138	20	4,000	0·83	13	61	9	1 : 13·7	29

TABLE E.

Name of Farm.	Gallons of sewage treated per square yard of land under treatment per day.	"Strength" of Sewage.	"Strength" or oxidizability of effluent (including the nitrate).	Parts by weight of oxygen used in oxidizing 100,000 parts of sewage (including the oxygen required to produce the nitrate of the effluent).	"Units of purification" effected per square yard.	Average depth to drains.	"Units of purification" effected per cube yard.	Percentage purification calculated on "Oxygen absorbed" in 4 hours from permanganate (chance effluents compared with hourly sewages).
Cambridge	6·28	106 (2)	0·0	106	666	4 ft. 6 in.	381	92 per cent.
Altrincham	4·75	54·5 ? (1)	4·4	50·1	238	3 ft. 9 in.	190	?
Nottingham	2·22	182	— 5·0	187	415	7 ft. 0 in.	178	99
Beddington	1·96	111	6·7	104·3	204	2 ft. 3 in.	272	89
Rugby	1·76	168	7·4	160·6	283	Say 2 ft. 0 in.		92
Aldershot Camp	1·72	193	1·0	192	330	3 ft. 3 in.	305	87
Leicester	1·11	168 (2)	8·0	160	178			88
South Norwood	0·83	73	3·6	69·4	57·6			81

(1.) ALTRINCHAM.—In this case the "strength" is calculated from 4 *chance* samples of sewage plus 5 *chance* samples of lagoon liquor. The figure for "strength" is therefore not nearly reliable as in the other cases; probably it is considerably below the truth.

(2.) Making correction for abnormal ratio between "oxygen absorbed" from permanganate *at once* and *in* 4 *hours* in the cases of Cambridge and Leicester.

TABLE F.

Name of Farm.	(*a*) Sewage treated.	(*b*) Gallons per acre of land under treatment, per 24 hours ÷ 1,000	(*c*) Calculated strength of sewage.	(*d*) Relative oxidizable matter treated on unit area (b × c).	(*e*) Population per acre of land under treatment.	(*f*) Relative oxidizable matter treated per head of population (d ÷ e).
Cambridge - -	Screened and settled.	30·4	106	3,222	675	4·8
Altrincham - -	Very well settled in lagoons.	23·0				
Nottingham - -	Screened and crude.	10·8	182	1,966	397	5·0
Beddington - -	Screened and settled.	9·5	111	1,055	238	4·4
Rugby - - - -	Screened and settled.	8·8	168	1,478	171	8·6
Aldershot Camp - -	Screened and settled.	8·3	193	1,602	166	9 0
Leicester - - -	Screened and settled.	5·7	168	908	146	6·2
South Norwood - -	Screened and settled.	4·0	73	292	191	1·5

The figures in column (*f*) for relative oxidizable matter per head shew marked divergences, but still, if we except South Norwood, where the figure is probably below the truth, the extreme limits are only 4·4 and 9 or 1 : 2. The highest figures occur at Aldershot Camp and Rugby, where the sewages (domestic) are very strong.

199. The following points are brought out by these Tables :—

The *relative* figures for population per acre irrigated, and for gallons per day, follow one another pretty closely, excepting in the case of Nottingham.

The *relative* oxidizable matter per head of population varied from about 1 to 2. It was greatest in the stronger sewages.

The *relative* "strength" of the sewage per gallon, *i.e.*, oxidizable matter per gallon, varied roughly from 1 to 2½, but it was nearly constant for the less strong sewages.

The volumes of sewage (screened and settled in nearly every case) treated per 24 hours at the different farms ranged between 0·83 and 6·28 gallons per square yard, or between 4,000 and 30,400 gallons per acre.

200. The quantity of sewage which can be treated upon an unit area of land is necessarily small, because of the fineness of the filtering medium. Apart from this it is dependent upon a number of factors, of which the principal are :—

(*a*) Whether surface irrigation or filtration is followed.

(*b*) The quality and depth of the soil and subsoil.

(*c*) Whether or not the land is cropped.
(*d*) The strength of the sewage or sewage liquor.
(*e*) The degree of clarification of the liquor.

We have had no opportunity of ascertaining, quantitatively, whether it is easier with land treatment to purify one volume of strong sewage, or two volumes of a sewage of half the strength. We should infer, however, that the results with land would be so far analogous to those with artificial filters that, within ordinary limits of strength of sewage, *and so long as water-logging of the land was avoided*, there would be no appreciable difference in purification in the two cases. Since, however, a fine filtering medium like soil readily tends to become clogged on the surface, and, therefore, becomes sodden sooner than the relatively coarse medium of artificial filters, we think it would generally be found easier to treat upon land one volume of a strong sewage rather than two volumes of a sewage of half the strength, and that, therefore, with land treatment, the volume of liquid to be dealt with is of greater consequence than its actual strength.

Physical Texture of Soils.

201. A detailed account of the mechanical analyses of the soils and subsoils of the principal farms under observation is to be found in Volume IV., Part II., presented with our Fourth Report.* The results of these mechanical analyses, while too few to allow of general deductions being drawn, show that it is possible to say from the mechanical analysis of a soil whether or not it would be suitable for purifying sewage by filtration, and the same statement holds true, though in a lesser degree, as regards suitability for surface irrigation.

Preliminary Settlement of Sewage before Land Treatment.

202. In the case of sewage which is to be treated upon artificial filters, it is generally desirable to settle out as much of the suspended solids of the sewage as possible before filtration. This is of less moment in the case of land, but where the soil is heavy we think that the sewage should usually be efficiently screened and settled. Porous sandy soils, worked as filtration farms, may be able to treat crude unsettled domestic sewage without detriment, but, even in those cases, there is the possibility of nuisance arising from the decomposition of sewage solids on the surface of the soil, and such solids may cause damage to crops.

Disposal of Sludge at Sewage Farms.

203. At a sewage farm the disposal of the sludge offers no particular difficulty, the land treatment of sewage possessing in this respect a great natural advantage over artificial treatment.

The question of the disposal of sludge generally is dealt with in a later section.

Evaporation and Absorption of the Water of Sewage in Land Treatment.

204. In the artificial filtration of sewage or sewage liquor, practically all the sewage which flows on to the filter appears as effluent, very little evaporation taking place. In the case of land purification, however, especially where crops are grown, the liquid is partly absorbed by the plant and partly evaporated, and consequently, the volume of the resulting effluent is materially less than that of the original sewage. Indeed, in warm weather, very little effluent passes away from surface irrigation farms treating moderate volumes of sewage.

Loss of Nitrogen from Sewage during its Purification.

205. The most important manurial constituent of sewage is the ammonia which is produced by the fermentation of the urea of the urine, but it also contains organic nitrogen

* Mechanical Analysis of Soils and Subsoils. By G. McGowan and R. S. Finlow.

compounds in smaller quantity, together with phosphates and salts of potash. In the process of sewage purification by artificial filtration, varying quantities of the nitrogen of the ammonia and other compounds disappear, partly, no doubt, from conversion into gaseous nitrogen, and partly from being assimilated by vegetable growths, worms, flies, etc. ; the remainder of the nitrogen is converted (in a well purified effluent) into nitrate. The following average figures, obtained from our own work, may be taken as giving a fair idea of the amounts of nitrogen which disappear during the treatment of sewage and sewage liquors upon contact beds and percolating filters, and upon land. In the latter case, much of the nitrogen which has vanished has been used up by growing crops.

	Percentage of the Nitrogen of Sewage or Sewage Liquor which disappears during the Process of Purification.
Land Surface Irrigation of Sewage - - - - -	About 60 (40 to 75).
Land Filtration of Sewage - - - - - -	
Treatment of Sewage on Percolating Filters - - -	40 to 50.
„ Septic Liquor on Contact Beds - - -	40 to 45 Single Contact. 40 to 50 Double Contact.
„ Septic Liquor on Percolating Filters - -	30 to 40 or less.
„ Precipitation Liquor on Contact Beds - -	25 (Single Contact.)*
„ Precipitation Liquor on Percolating Filters -	40 to 50.

206. It is in the form of nitrate that nitrogen is taken up by most plants. Much has been written about the loss to the country arising from the non-utilisation of the nitrogen of sewage which has been purified by artificial filtration, a loss which is certainly to be deplored. It is, however, frequently forgotten that when water-borne sewage is purified on land, upon which grass or other crops are grown, loss of nitrogen is, to a large extent, unavoidable in the colder seasons of the year, since plants can only assimilate nitrate very slowly in cold weather. As regards the production of nitrate in the soil, it is well known that this is largely influenced by temperature, coming practically to a standstill when the temperature is very low, but it is probable, we think, that in this country the temperature would very rarely be sufficiently low for a long period, to arrest nitrification. During our observations on sewage farms, we had no experience of a very severe winter, but nitrification was not materially hindered by such cold as we did experience. It will, of course, be remembered, in this connection, that the temperature of sewage itself is comparatively high.

In Vol. IV., Part IV., of the Report to the Commission upon Land Treatment (Engineering and Practical), by Mr. Kershaw, are diagrams giving the daily temperatures, over a year, of air, sewage, and effluent at the sewage farms of Nottingham, Aldershot Camp, South Norwood, and Beddington. On only one occasion during the winter of 1900–1 did the temperature of the sewage at Nottingham fall below 50° F., while the lowest temperatures for sewage at other farms were 46° F. at Beddington, 42° F. at South Norwood, and 40° F. at Aldershot Camp. The diagrams also show the equalising effect, as regards temperature of effluent, of the filtration farms, Aldershot Camp and Nottingham, while in the case of the surface irrigation farms of Beddington and South Norwood, the temperature of the effluent follows that of the air pretty closely.

There is, unfortunately, no economical method of extracting the nitrate from a sewage effluent otherwise than through the agency of plants, and, as we have stated, there must of necessity be a considerable loss of valuable nitrogenous manure from water-borne sewage, even in the case of land purification. In the case of artificial filtration, supposing

* This figure is from one installation only.

the effluent to be subsequently discharged into a stream, the loss is, of course, much greater, all the manurial constituents of the sewage, apart from those in the sludge, being wasted. They will, it is true, augment the vegetable growths in the stream itself, but this is nearly always more or less objectionable.

Is a Sewage Farm Dangerous to Health?

207. No proof has yet been furnished of direct or wide-spread injury to health, in the case of well-managed sewage farms. It is interesting to note here that the Report for 1905 on the sewage farm of Berlin contains the following statement :—

"We can only repeat here what we have said in previous Reports—that the sewage treatment (*Rieselbetrieb*) has had no injurious effect upon health."

This farm covers an area of nearly 39,000 acres of sandy soil, and there was on the ground in 1905 a resident population of 4,198 persons.

Wells in the Neighbourhood of Sewage Farms.

208. We have examined too few samples of well water in the neighbourhood of sewage farms to allow of our drawing any safe conclusions, on experimental grounds, as to the admissibility of such wells. But on general grounds, and quite apart from any scientific data, it would seem to be unsafe to sink any shallow wells in the neighbourhood of sewage farms, or to use water for domestic purposes from any such existing wells, unless the evidence as to the safety of the water were of a most convincing kind.

Deep wells sunk through an impermeable stratum are probably safe in the majority of instances, but wells not protected in this way, and sunk through fissured strata, can not be relied on to yield a safe water supply, however deep they may be.

Chalk wells are, perhaps, the most dangerous in this respect, and a recent Report by Dr. Copeman on an outbreak of enteric fever at Fulbourn Asylum,* and a paper † read at a recent meeting of the Epidemiological Society by Drs. Richards and Brinker, serve to confirm this view in a striking manner. The latter mention that a culture of a special organism was poured into a "swallow" hole at a distance of about two miles from the well, and was recovered from the well water after 67½ hours. It is doubtful whether sewage farms on chalk should be permitted without wide knowledge of the trend of underground water in relation to water supplies.

An attempt was made to collect an effluent on the Luton farm by digging a pit in the chalk, and in this way a few samples were obtained. The results, so far as they went, showed that *apart from the purification effected by the surface soil*, sewage underwent comparatively little purification in its passage through about three feet of chalk.

Sewage Farms on Peat Land.

209. Peat being of the nature of a sponge is not suitable for sewage purification, because of the difficulty of draining it, and the consequent lack of aeration. Some observations were made at the Worsley Sewage Farm, part of which is on peat land, and the results obtained there bear out this statement. The details of these observations are to be found in Vol. IV., Parts I. to IV., presented with our Fourth Report.

Management of Sewage Farms.

210. It is impossible to lay too much stress on the importance of sewage farms being well managed. In this connection it has to be borne in mind that farm managers have a most difficult part to play, and no amount of care and attention will ever enable land, of any kind, to deal with a volume of sewage which is in excess of the effective purifying area of the soil. We think it would be useful that farm managers should be taught some simple test or tests to enable them to follow the operations of the land; that their instructions should include a definite order to consider the farming results as quite secondary to the production of an effluent of the required standard; that the statistics of the farm should be carefully kept; and that, wherever possible, the flow of sewage and storm water should be gauged throughout the year.

As a general rule, we consider that sewage farms should not be let.

* Report of the Medical Officer, Local Government Board, 1905–6, Appendix A., No. 6, pp. 146–169.
† The Potential Danger of Water derived from Wells in the Chalk.

Some Observations as to the Cost of Land Treatment of Sewage.

211. The cost of land treatment, as in the case of artificial filtration, varies with local conditions, and no figures can be given which would be generally applicable. In Table I. we give the annual cost per 1,000,000 gallons and per head for the eight sewage farms which we had under our own observation for over two years. In each case, the cost per 1,000,000 gallons is based upon the dry weather flow of sewage. The actual flow, however, included large volumes of storm water in most cases.

Table I.

Farms which were under continuous observation by officers of the Commission for over two years.

Place.	Population draining to farm.	Dry weather flow of sewage in gallons per 24 hours.	Net cost of treating the sewage per million gallons (including loan charges), based on the dry weather flow.	Net annual cost of treatment per head of population draining to farm, including loan charges.
		Gallons.	£ s. d.	s. d.
South Norwood -	21,000	600,000	*15 9 7	*3 2½
Leicester - - -	197,000	7,250,000	5 12 8½	1 6
Croydon (Beddington)	100,000	4,000,000	5 7 5¾	1 6¾
Cambridge - -	50,000	2,250,000	2 5 5¾	0 9
Aldershot Camp -	20,000	1,000,000	†1 18 4	†0 8¼
Rugby (High Level)	6,000	300,000	1 9 8½	0 6¼
Altrincham - -	18,000	800,000	1 3 3¾	0 4¼
Nottingham - -	258,000	7,000,000	The figures of cost cannot be given for Nottingham. Excluding loan charges, cost of pumping, and rent of farm, however, there is usually a small profit on the year's working of the farm, which covers the cost of labour and also part of the rent.	

212. With a view to making some comparison between the cost of land treatment and the cost of treatment by "artificial" processes, we have thought it useful to work out the cost of treating on land a dry weather flow of 1,000,000 gallons a day, in certain hypothetical cases, following the plan adopted in regard to filters.

It is assumed for the purpose of this comparison :—

That, in the case of surface irrigation, sufficient fall is available, and that, in the case of filtration, the land is fairly level, admitting of its being used without abnormal expenditure in levelling and grading.

That the sewage to be treated is of a normal domestic character and of average strength (*i.e.*, gives a *four hours* "oxygen absorbed" figure of 10 to 12 with strong permanganate, and requires about 100 parts by weight of oxygen for the complete oxidation of 100,000 parts).

That the flow of sewage is one million gallons per day in dry weather.

That the district is sewered on the combined or the partially separate system.

That the cost of the land is £100 per acre.

* These figures include cost of pumping the effluent from the lower to the higher portions of the farm.

† No loan charges in the case of Aldershot Camp.

The soils and subsoils which we have considered, may be divided into the following three broad classes :—

Class I. All kinds of good soil and subsoil, *e.g.*, sandy loam overlying gravel and sand as at Nottingham, Cambridge, and Beddington.

Class II. Heavy soil overlying clay subsoil, as at Rugby.

Class III. Stiff clayey soil overlying dense clay, as at Leicester and South Norwood.

Since variations exist in practice, both as regards the method of purification employed and the extent of cropping, the first of these three classes may be divided into three sub-classes, as follows :—

Class I.
- Sub-class a. Filtration with cropping.
- Sub-class b. Filtration with little cropping.
- Sub-class c. Surface Irrigation with cropping.

The method of purification assumed for the other classes of soil are :—

Class II. Surface Irrigation with cropping.

Class III. Surface Irrigation with cropping. With a heavy soil and clay subsoil, by far the greater part of the purification is effected by surface irrigation, though in exceptional circumstances, such as obtain at Leicester, a good deal is also done by filtration.

213. Having regard to the volume of sewage dealt with and the purification effected at the farms which were kept under our own observation, and the evidence given by various witnesses, we estimate that the several classes of soil and subsoil could effectively deal with the volumes of settled sewage given in Table II.

TABLE II.

Class of soil and subsoil, and method of working.	Volume of settled sewage which can be dealt with per acre per 24 hours.	Total area of land required to deal with a dry weather flow of one million gallons.*
Class I. Sub-class a. Filtration with cropping	12,000 gallons	84 acres
Class I. Sub class b. Filtration with little cropping	25,000 gallons	40 acres
Class I. Sub-class c. Surface irrigation with cropping	7,000 gallons	145 acres
Class II. Surface irrigation with cropping	5,000 gallons	200 acres
Class III. Surface irrigation with cropping	3,000 gallons	334 acres

* These areas are sufficient for the treatment in times of storm water of three times the mean dry weather flow.

Preliminary Tank Treatment.

214. At many of the sewage farms named in Table I. there is no preliminary settlement of the sewage, while at some of them the preliminary process does not secure anything like complete removal of the suspended matter.

For the purpose of our comparison, however, we have assumed preliminary settlement of the sewage in tanks of the capacities indicated in Table III:—

TABLE III.

Class of soil and subsoil and method of working.		Average stay in tanks.	Total number of tanks.	Number of spare tanks.	Total capacity of tanks (gallons)	Constructional cost of tanks.*
Class I.	Sub-class a. Filtration with cropping	4½ hours	4	1	250,000	£2,230
	Sub-class b. Filtration with little cropping	4½ hours	4	1	250,000	£2,230
	Sub-class c. Surface irrigation with cropping	4½ hours	4	1	250,000	£2,230
Class II.	Surface irrigation with cropping	15 hours	8	2	833,333	£5,112
Class III.	Surface irrigation with cropping	15 hours	8	2	833,333	£5,112

* The estimates of the constructional cost of tanks are strictly comparable with the estimates for similar plant in connection with the artificial processes, and have been obtained by preparing drawings and taking out quantities.

Cost of Preliminary Tank Treatment and Disposal of Sludge.

215. We estimate that the working of the tanks and the disposal of the sludge, including trenching the land and covering the sludge, would require the services of two men for each of the first three classes (4½ hours sedimentation), and the services of three men for the other two (15 hours sedimentation).

Taking labourers' time at 21s. per week, and including one-third of the manager's time at a salary of £130 per annum, the following figures are obtained:—

TABLE IV.

Class of soil and subsoil and method of working.		Labour and supervision in connection with tanks and disposal of sludge.	
		Per annum.	Per million gallons of sewage (dry weather flow).
		£	s. d.
Class I.	Sub-class a. Filtration with cropping	152	8 4
	Sub-class b. Filtration with little cropping	152	8 4
	Sub-class c. Surface irrigation with cropping	152	8 4
Class II.	Surface irrigation with cropping	208	11 5
Class III.	Surface irrigation with cropping	208	11 5

In the case of Classes II. and III. (heavy soils and subsoils), it would generally be advisable to eliminate the suspended solids from the sewage to a greater extent than in the other class where the soil and subsoil are of good quality.

With an average domestic sewage, the suspended solids after 4½ hours settlement (continuous flow) would be about 20 to 25 parts per 100,000, and, after a 15 hours settlement (continuous flow), from 10 to 15 parts per 100,000.

Converting these amounts of suspended solids into tons of wet sludge per million gallons, the quantities of sludge to be disposed of are approximately as follows :—

TABLE V.

Class of soil and subsoil and method of working.	Wet sludge (90% water) produced per million gallons from the average daily flow.	Area of land estimated to be required for disposal of the sludge.
Class I. Sub-class a. Filtration with cropping	8 to 10 tons	5 acres
Class I. Sub-class b. Filtration with little cropping	8 to 10 tons	5 acres
Class I. Sub-class c. Surface irrigation with cropping	8 to 10 tons	5 acres
Class II. Surface irrigation with cropping	17 to 20 tons	12 acres
Class III. Surface irrigation with cropping	17 to 20 tons	20 acres

Table VI. shows the total areas of land required for treatment of the sewage and for disposal of the sludge, and the total cost of land and tanks.

TABLE VI.

Class of soil and subsoil.	Total area of land required to treat a dry weather flow of one million gallons.	Area of land required for disposal of sludge.	Total area.	Total cost of land at £100 per acre.	Cost of laying out land, including levelling, grading, underdrains, carriers, etc.	Cost of tanks.	Total cost.
				£	£	£	£
Class I. Sub-class a	84 acres	5 acres	89 acres	8,900	6,334	2,230	17,464
Class I. Sub-class b	40 acres	5 acres	45 acres	4,500	4,589	2,230	11,319
Class I. Sub-class c	145 acres	5 acres	150 acres	15,000	4,494	2,230	21,724
Class II.	200 acres	12 acres	212 acres	21,000	5,770	5,112	32,082
Class III.	334 acres	20 acres	354 acres	35,400	7,599	5,112	48,111

216. With regard to the underdraining of land, the necessity for drains depends not merely upon the nature of the soil and subsoil, but upon the volume of liquid dealt with per acre. A porous soil and subsoil like that at Beddington can be made to answer perfectly well without underdrains, when a moderate volume of sewage is applied; when, however, a large volume is applied, underdrains are necessary, in order to assist the land to "dry-off" sufficiently rapidly.

In Sub-class a (Class I.), we have assumed that the tributary drains average 6 feet in depth and are laid 66 feet apart.

In Sub-class b (Class I.), where the volume of liquid applied is larger, and the area proportionately less, the tributary drains, also 6 feet deep, have been placed 50 feet apart.

In the case of the surface irrigation farms (Sub-class c and Classes II. and III.), underdrainage has been allowed for, to provide for the contingency of possible over sewaging of the plots; but in the case of the heavy soils and subsoils we have assumed that the drains are only laid at a depth of 2 feet 6 inches and that they are brought to the surface of the ground to admit of re-treatment of the effluent by surface irrigation.

Loan Charges.

217. Table VII. gives the loan charges in respect of cost of land, tanks, etc., on the basis of loans raised for thirty years, at 3½ per cent. interest per annum.

TABLE VII.

Class of soil and subsoil and method of working.	Loan charges in respect of land, tanks, laying out land, underdrains, etc.	
	Per annum.	Per million gallons of sewage. (dry weather flow).
	£ s. d.	£ s. d.
Class I. Sub-class a. Filtration with cropping	949 12 1	2 12 0
Class I. Sub-class b. Filtration with little cropping	615 9 5	1 13 8¾
Class I. Sub-class c. Surface irrigation with cropping	1,181 4 10	3 4 8¾
Class II. Surface irrigation with cropping	1,744 9 2	4 15 7
Class III. Surface irrigation with cropping	2,616 0 8	7 3 4

Labour in connection with the Distribution of the Sewage.

218. The number of men required in connection with the distribution of the sewage, etc., must of course depend largely upon the nature and contour of the lands sewaged, and upon the nature of the crops raised, whether stock is kept, etc.

From numerous examples of land treatment, however, we find that roughly speaking one man can attend to the distribution of the sewage over about 40 acres.

It has been assumed in the present comparison that the services of the men who undertake the sludging of the tanks are available, and we estimate that in addition to these men the number of watermen required would be as follows :

TABLE VIII.

Class of soil and subsoil and method of working.	Number of watermen required.
Class I. Sub-class a. Filtration with cropping	One.
Class I. Sub-class b. Filtration with little cropping	One.
Class I. Sub-class c. Surface irrigation with cropping	Two.
Class II. Surface irrigation with cropping	Three.
Class III. Surface irrigation with cropping	Four

Taking labourers' wages as before at 21s. per week, together with two-thirds the manager's time, the cost of labour and supervision in respect of the distribution of sewage is as follows :—

TABLE IX.

Class of soil and subsoil and method of working.	Cost of labour and supervision in respect of distribution of sewage.	
	Per annum.	Per million gallons (dry weather flow).
	£	£ s. d.
Class I. Sub-class a. Filtration with cropping	141	0 7 8¾
Class I. Sub-class b. Filtration with little cropping	141	0 7 8¾
Class I. Sub-class c. Surface irrigation with cropping	196	0 10 9
Class II. Surface irrigation with cropping	250	0 13 8½
Class III. Surface irrigation with cropping	305	0 16 8½

219. The total cost of treatment, including loan charges and all other charges, is shown in Table X.

TABLE X.

Total Gross Cost of Land Treatment.

Class of soil and subsoil and method of working.	Per annum.	Per million gallons (dry weather flow).
	£ s. d.	£ s. d.
Class I. Sub-class a. Filtration with cropping	1,242 12 1	3 8 0¾
Class I. Sub-class b. Filtration with little cropping	908 9 5	2 9 9
Class I. Sub-class c. Surface irrigation with cropping	1,529 4 10	4 3 9¾
Class II. Surface irrigation with cropping	2,202 9 2	6 0 8½
Class III. Surface irrigation with cropping	3,129 0 8	8 11 5½

Returns from Sales of Crops.

220. In the case of land treatment of sewage, a part, frequently a large part, of the cost of treatment is defrayed by returns from sales of crops, stock, sludge, etc.

These returns necessarily vary at different farms, but we find from a careful study of the figures obtained at thirteen sewage farms, that the net return, after deducting cost of agricultural working, may be put at about 30s. per acre of the total area of the farm. We have therefore taken this figure for our calculations in the following Table :—

TABLE XI.

Class of soil and subsoil and method of working.	Returns from sales of crops.	
	Per annum.	Per million gallons (dry weather flow).
	£ s. d.	£ s. d.
Class I. Sub-class a. Filtration with cropping	126 0 0	0 6 10¾
Class I. Sub-class b. Filtration with little cropping	60 0 0	0 3 3¼
Class I. Sub-class c. Surface irrigation with cropping	217 10 0	0 11 11
Class II. Surface irrigation with cropping	300 0 0	0 16 5
Class III. Surface irrigation with cropping	501 0 0	1 7 5

Total net Cost of Treatment.

221. Deducting the returns from sales of crops from the gross cost of treatment, we obtain the following figures for the total net cost of treatment :—

TABLE XII.

Class of soil and subsoil and method of working.	Net cost of treatment.	
	Per annum.	Per million gallons.
	£ s. d.	£ s. d.
Class I. Sub-class a. Filtration with cropping	1,116 12 1	3 1 2
Class I. Sub-class b. Filtration with little cropping	848 9 5	2 6 6
Class I. Sub-class c. Surface irrigation with cropping	1,311 14 10	3 11 10¾
Class II. Surface irrigation with cropping	1,902 9 2	5 4 3
Class III. Surface irrigation with cropping	2,628 0 8	7 4 0

Comparative Cost of Treatment of Sewage by Land and by Artificial Processes.

222. Table XIII. shows the comparative cost of treatment of sewage by land and by artificial processes.

We wish to emphasize the fact that in the preparation of our "cost" tables, we have made a number of assumptions. and that the relative cost of different methods would, in practice, largely depend on local circumstances.

Table XIII.

	Total cost of treatment per annum.	Total cost of treatment per million gallons.	*Cost per head of population draining to works (population taken at 30,000).
Method of Treatment.	Percolating	Filters.	
	£ s. d.	£ s. d.	s. d.
Chemical precipitation, quiescent settlement, followed by percolating filters.	1,831 0 4	5 0 4	1 2½
Chemical precipitation, continuous flow settlement, followed by percolating filters.	1,796 11 2	4 18 5	1 2¼
Quiescent settlement, followed by percolating filters.	1,490 16 11	4 1 7	0 11¾
Continuous flow settlement, followed by percolating filters.	1,525 1 1	4 3 7	1 0
Septic Tanks, followed by percolating filters -	1,589 13 4	4 7 2	1 0½
	Contact	Beds.	
Chemical precipitation, quiescent settlement, followed by single contact beds.	2,038 16 11	5 12 10	1 4¼
Chemical precipitation, continuous flow settlement, followed by double contact beds.	2,314 12 5	6 6 9	1 6½
Quiescent settlement, followed by double contact beds.	2,398 0 7	6 11 4	1 7
Continuous flow settlement, followed by double contact beds.	2,596 17 3	7 2 3	1 9
Septic Tanks, followed by double contact beds -	2,661 9 6	7 5 10	1 9¼
Class of soil and subsoil and method of working.	Land Treatment.		
Class I. Sub-class a. Filtration with cropping	1,116 12 1	3 1 2	0 8¾
Class I. Sub-class b. Filtration with little cropping	848 9 5	2 6 6	0 6¾
Class I. Sub-class c. Surface irrigation with cropping	1,311 14 10	3 11 10¾	0 10½
Class II. Surface irrigation with cropping - -	1,902 9 2	5 4 3	1 3¼
Class III. Surface irrigation with cropping -	2,628 0 8	7 4 0	1 9

*Based on a flow of 33 gallons of sewage per head per day.

Assuming that really suitable land can be purchased at £100 per acre, land treatment of sewage is probably cheaper than artificial treatment, but where the soil is not suitable, and on which only a comparatively small volume of sewage can be treated per acre, the cost of land treatment would probably be greater than most of the artificial processes.

The differences in cost are, however, small, and it is evident that, in deciding between the two methods, regard must be had to local conditions. If, for instance, £200 per acre had to be paid for land, the cost of land treatment would materially exceed the estimates given, which have been based on an assumed uniform price of £100 per acre.

As a general rule an effluent from good land, properly worked, contains practically no suspended solids, but this cannot be said of artificial filters, even assuming that settlement of the effluent in tanks is adopted. This might be a factor of considerable importance in the case of some streams.

The figures of cost in this section have been prepared by our Engineer, Mr. G. B. Kershaw.

PART IV.—SLUDGE.

DISPOSAL OF SEWAGE SLUDGE.

223. The disposal of sewage sludge, whether it is produced by settlement after chemical precipitation, settlement without chemicals, or septic tank treatment, is one of the chief difficulties in dealing with sewage, especially in the case of large towns or cities. Probably it will always remain so, excepting at small sewage works, for although sewage sludge contains small quantities of nitrogenous compounds and phosphates, and sometimes grease in sufficient quantity to repay extraction, by far the greater part of it consists, in addition to moisture, of mineral matters, together with some cellulose.

Conversion of Sludge into a Marketable Manure.

224. Two processes for converting sludge into a marketable manure have been under observation by us, viz.:—the production of "Native Guano" by the Native Guano Company, Limited, at Kingston-on-Thames, and the production of "Globe Fertilizer" by Mr. Melvin's process at Glasgow.

Kingston-on-Thames.

At Kingston a quantity of alumino-ferric, together with blood, charcoal, and clay is added to the sewage. This mixture acts as an extremely efficient precipitant, producing uniformly, from a sewage of about average strength, a tank liquor containing seldom more than two parts of suspended matter per 100,000. The sludge is removed from the tanks, pressed, partially dried by heat and sieved, and, after further air-drying during storage, is sold under the name of "Native Guano." The cost to the inhabitants of Kingston of the precipitation of the sewage and the disposal of the sludge * is 1s. 8d. per head per year. This is considerably less than it would be if a less expensive precipitation process were adopted and the sludge barged to sea. Further, although there is generally a slight peculiar odour of Native Guano upon the works, the treatment, so far we have observed it, has been free from nuisance.

It will be seen from the manurial experiments with sewage sludges, which are referred to later, and which were carried out for the Commission through the Board of Agriculture and the Royal Agricultural Society, during the seasons 1905–7,† that unit for unit the nitrogen and phosphate of the Native Guano were less effective, at all events within the limits of one season, than the same constituents applied in the form of ordinary artificial manure. Judged solely in this light, the price of the Native Guano is in excess of its direct manurial value. On the other hand, the books of the Company show that the manure is sold to the same farmers year by year. The manure appears to be used to a considerable extent for flower culture.

We doubt whether the process could be worked as a financial success if it were adopted at a *large* number of places, as, apart from the considerations which have just been mentioned, a greatly increased production of the manure would, we think, be certain to lower the price considerably.

It should be added, however, that the cost of the precipitation, and possibly also of other parts of the manufacture of the Native Guano, might, we think, be materially reduced by working on a large scale.

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* This constituted the whole process at Kingston during the greater part of our observations. The figure 1s. 8d. per head refers to the precipitation and sludge disposal only. The precipitation liquor is now (1907) treated upon filters.

† Reports upon Experiments with various kinds of Sewage Sludges, as applied to mangolds, grass and cereals, by Dr. W. Somerville (1906), Mr. T. H. Middleton (1907), and Dr. J. A. Voelcker (1907), Appendix VIII.

A sample of Native Guano (A.), made up of eighty-five different fractions, was taken on March 23rd, 1905, and examined both chemically and bacteriologically. It was in a fine state of division. In the second column are given the figures of analysis of another sample of Native Guano (B.), examined partly in October, 1904, and partly in January, 1905. The following results were obtained :—

	A. Per cent.	B. Per cent.
Moisture (at about 110° C.)	25·87	10·19
Matter volatile on ignition	37·99	45·08
Non-volatile matter	36·14	44·73
	100·0	100·0

Analysis of Non-Volatile Matter.

	Per cent.	Per cent.
Grit (*i.e.*, matter insoluble in hydrochloric acid, after ignition)	22·33	28·04
Oxides of iron and alumina*	10·10	11·59
Lime†	3·30	4·78
Magnesia		0·42
Potash (soluble in dilute hydrochloric acid)	approx. 0·16	—
Potash (soluble in water)	0·06	—
Phosphoric acid (P_2O_5)	1·74§	2·35§
Equivalent to tribasic phosphate of lime	3·30	5·13
Yield of Nitrogen (total)	1·93‖	2·49‖
Nitrogen evolved as ammonia on boiling for 2 hours with a dilute solution of potash (0·5 per cent. KOH)	0·41	0·50

Allowing for the difference in moisture, the above two samples have almost the same composition, but B. is slightly richer in nitrogen and phosphoric acid than A.

Bacteriological Analysis.—Sample A.

Kingston "Native Guano." Average of eighty-five samples, March 23rd, 1905.

B. Coli Test.—Negative result with 1 gramme.

Neutral Red Broth Test.—As regards fluorescence, positive with 1–1,000 ; negative with 1–10,000 of a gramme. Growth in tube inoculated with 1–10,000,000,000 of a gramme, indicating the survival of an enormous number of bacteria.

B. Enteritidis Sporogenes Test.—Positive result with 1–1,000 ; negative with 1–10,000 of a gramme.

Glasgow (Dalmarnock).

225. Mr. Melvin's process at Glasgow for the production of the "Globe Fertiliser" is somewhat similar to the process for the production of Native Guano. The sludge is produced from the Glasgow (Dalmarnock) sewage by precipitation with lime and ferric sulphate. After removal from the tanks it is pressed, and that part of it which is to be converted into Globe Fertiliser is then artificially dried at a temperature of about 65° to 70° C.. and finally passed through a pan-mill. It issues from the latter as a moist brown powder, which is given the name of "Globe Fertiliser." An average sample of this, collected on April 6th, 1905, gave the following figures on analysis :—

	Per cent.
Moisture (at about 110° C.)	22·51
Matter volatile on heating	33·98
Non-volatile matter	43·51
	100·0

* These oxides will contain the phosphoric acid and possibly a very little of the lime.

† The lime was precipitated only once ; it will contain traces of magnesia.

§ ‖ The figures for phosphoric acid and for total nitrogen are in each case the mean of two closely agreeing estimations.

Analysis of Non-Volatile Matter.

	Per cent.
Grit, etc. (*i.e.*, matter insoluble in hydrochloric acid, after ignition)	10·75
Oxides of iron and alumina*	13·42
Lime†	12·09
Magnesia	—
Potash (soluble in hydrochloric acid)	approx. 0·10
Phosphoric acid ($P_2 O_5$)	1·11‡
Equivalent to tribasic phosphate of lime	2·42
Yield of Nitrogen (total)	1·30‖

Nitrogen evolved on boiling the sludge for 2 hours with dilute (0·5 per cent.) potash solution on May 22nd [1] - - - - - - 0·06

([1] Grey mould on surface, at this date, which was avoided in sampling).

Bacteriological Analysis.

Glasgow, "Globe Fertiliser." Average of twenty samples.

B. Coli Test.—Negative result with 1 gramme.

Neutral Red Broth Test.—As regards fluorescence, positive result with 1–1,000; negative with 1–10,000 of a gramme. Growth in 1–100,000; no growth in 1–1,000,000 of a gramme.

B. Enteritidis Sporogenes Test.—Positive result with 1–100; negative with 1–1,000 of a gramme.

A larger portion of the sludge is converted into pressed cake, without being artificially dried.

The following table shows the production and sale of Globe Fertiliser and pressed cake at the Glasgow (Dalmarnock) works during the five years ending March, 1907 :—

Aggregate Quantities of 5 Years' Working.

Total amount of wet sludge dealt with. (Tons).	Total amount of pressed cake produced. (Tons).	Total amount of pressed cake sold to farmers. (Tons).	Total amount of Globe Fertiliser produced. (Tons).	Total amount of Globe Fertiliser sold to Customers. (Tons).
1,104,297 (Moisture 91% approx.).	177,566 (Moisture 60 to 65%).	124,883	5,702	5,703

Mr. Melvin gives the costs relating to these figures (excluding interest and sinking fund), as follows :—

Cost of pressing alone, per ton of pressed cake.—2s. $0\frac{5}{10}$d.

Cost of production of Globe Fertiliser, approximately.—5s. 6d. per ton, excluding pressing of wet sludge.

Total cost of production of Globe Fertiliser, approximately.—10s. per ton.

The average price obtained for the pressed cake was 8d. to 1s. per ton in bulk; the average price for the Globe Fertiliser 8s. to 10s. per ton in bulk, or 14s. per ton in bags. The purchaser pays the carriage in all cases.

* These oxides will contain the phosphoric acid and possibly a very little of the lime.

† The lime was precipitated only once; it will contain traces of magnesia.

‡ ‖ The figures for phosphoric acid and for total nitrogen are in each case the mean of two closely agreeing estimations.

The analyses of the pressed cake and Globe Fertiliser are given by Mr. Melvin as follows :—

	Pressed Cake. Per Cent.	Globe Fertiliser. Per Cent.
(1) Organic Matter	13·84	35·20
(2) Mineral Matter	18·16	46·20
Moisture	68·00	18·60
	100·0	100·0
(1) Containing Nitrogen	·52	1·34
Equal to Ammonia	·64	1·63
Or Sulphate of Ammonia	2·49	6·33
(2) Containing Phosphoric Acid	·54	1·39
Equal to Tribasic Phosphate of Lime	1·19	3·03
Analysis Value	6s. 11d. per ton.	17s. 8d. per ton.

It will be seen, therefore, that at Dalmarnock, by careful organisation and advertising, practically the whole of the sludge is disposed of by sale, either as pressed cake or as Globe Fertiliser, the cost of the sewage treatment being in this way materially reduced. The saving effected is about 4s. per 1,000,000 gallons. During the three years ending March 31st, 1907, the whole of the pressed cake was sold to farmers. The demand is still increasing and the connection is now good enough to obviate the necessity for advertising.

Mr. Melvin states that it is more convenient to sell sludge as pressed cake than as Globe Fertiliser, partly because less work is entailed in the former case, and partly because in the manufacture of the Fertiliser much dust is produced, and he finds it difficult to get his men to wear respirators. For this reason, the Globe Fertiliser is now made during spring and autumn only, and the quantity is diminishing year by year.

In comparing the sale of pressed cake at the Dalmarnock works with sales and possibilities of sales elsewhere, it has to be specially noted that there is a branch line of railway into the Dalmarnock works, and therefore no carting is required.

Disposal of Sludge by Depositing at Sea.

226. There can be little doubt that, for cities on or near the sea-board, the disposal of sludge by taking it to sea is, in the majority of cases, the cheapest process.

Except, however, in the case of the Barrow Deep, where the London sludge is discharged, little attention appears to have been paid to the effect of the sludge upon the character of the water in the neighbourhood of the dumping area. In order to avoid nuisance and possible danger to health from the pollution of shell-fish, periodical examination of the local conditions is generally desirable wherever this method of disposal is adopted.

London.

18, 502 *et. seq.* (Fourth Report, Vol II.)

227. The plan adopted for the disposal of the London sludge was fully explained to us by Mr. M. Fitzmaurice, C.M.G., when giving evidence on July 14th, 1903.

It will be seen from the evidence that the sludge is deposited at the Barrow Deep, over a length of from five to ten miles.

The Barrow Deep is practically the open sea, being situated about 20 miles below Southend.

The following table, which has been more recently supplied to us by Mr. Fitzmaurice, shows the quantity of wet sludge, etc., deposited in the Barrow Deep during the years 1903, 1904, 1905 and 1906 :—

County of London.

Year.	Average daily quantity of sewage dealt with. (Gallons.)	Total quantity of sludge produced at Barking and Crosness. (Tons.)	Average percentage of moisture in the sludge.	Total quantity of sludge sent to sea (Tons.)	Number of trips made by the steamers.	Total cost of sending to sea, per ton of wet sludge: interest, sinking fund, steamer dues, cost of filling ships and all charges included.†
1903	259,769,466	2,563,000*	92·02%	2,563,000*	2,563	4·51d.
1904	250,590,204	2,530,000	92·28%	2,530,000	2,530	4·77d.
1905	250,698,649	2,578,000	92·16%	2,578,000	2,578	4·40d.
1906	252,882,247	2,465,000	91·95%	2,465,000	2,465	4·53d.

The average cost of sending the London sludge to sea during the years 1903 to 1906 inclusive, including interest, sinking fund, cost of filling ships, labour, fuel, repairs and all charges, was thus 4·55d. per ton of sludge containing on the average 92·1 per cent. of moisture.

228. At our request Mr. Fitzmaurice carried out some float experiments in the Barrow Deep during spring and neap tides in September, 1903. These experiments showed that, with the exception of a slight set towards the Maplin Sands at flood tide, both the ebb and the flow took a course directly along the Barrow Deep. We note, however, that floats started at the most westerly point at which the steamers begin to discharge sludge were carried back on the flood tide nearly as far as the Nore Lightship. The experiments are shown graphically in the Fourth Report of the Commission, Vol. II., p. 106.

With regard to the condition of the water in the Barrow Deep, we may refer to the evidence of Professor F. Clowes, D.Sc., F.I.C. As the result of the examination of four series of samples collected in the Barrow Deep, Dr. Clowes makes the following *Statement of Conclusions* :— Clowes, 18,63

> "A study of these tables shows that there are on an average over 100,000,000 "of bacteria per cubic centimetre in the sludge discharged by the Council's steamers "in the Barrow Deep, and that about half this number are probably of intestinal "origin, since they are capable of growing at blood heat (37° C.); but that "immediately after the discharge of the sludge the number in the water of the "Barrow Deep is less than 2,500 per cubic centimetre, and that the number of "intestinal bacteria is generally less than 10 per cubic centimetre; indicating a "reduction of about 99·9 per cent. in the total number of bacteria and of intestinal "bacteria. Further, that the number of bacteria in the water which is carried out "of the Barrow Deep towards the mouth of the Thames, by an incoming flood tide, "is still further reduced to an average of 440 per cubic centimetre, and that the "number of intestinal bacteria has also further decreased."

The results of two experiments by Dr. Clowes upon the effect of sea water on bacterial life appear, so far as they go, to indicate that sea water does not exercise any marked inhibitory effect upon the life of the bacteria. On this showing, therefore, the above decrease in the number of bacteria in the Barrow Deep must evidently be looked upon as due to mere dilution of the sludge with sea water.

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* The quantity of sludge produced per annum may be slightly different from the quantity sent to sea per annum, as a certain amount of sludge is sometimes in store at the end of one year but not sent to sea until the beginning of the following year. This difference is not shown in the above table.

† The cost of filling the ships with sludge cannot be stated separately.

Examination of the Sands in the Barrow Deep and the Thames Estuary.

Clowes 18,636. 229. In August, 1899, Dr. Clowes made a chemical and microscopical examination of samples from the sea bottom in the part of the estuary where the sludge is deposited, and in parts of it which might be affected by the sludge. His conclusions are given as follows :—

> "The results of these examinations of the sands and of the deposits in the "Barrow Deep and in other channels in the estuary of the River Thames, during "the period 2nd to 12th August, 1899, show that no sludge is carried by the tide "beyond the limits of the Barrow Deep and the Oaze Deep in a westerly or "up-river direction. The sludge which is carried in an easterly or seaward "direction must meet with so great a volume of sea water that it is quickly broken "up into innocuous bodies, and thus prevented from travelling beyond the Barrow "Deep. Accordingly no evidence of pollution by sludge was obtained in an "easterly, northerly, or southerly direction."

The subject of sea water in relation to bacteriological life is more complicated than would appear at first sight, and before conclusions can be drawn with confidence as to the effects of deposition of sludge, observations extending over a lengthened period and under a variety of conditions would, we think, be required.

Taken in conjunction with Mr. Fitzmaurice's float experiments, the above results furnish grounds for the presumption that the polluted water is for the most part carried out to the open sea on the ebb tide ; but conclusively to prove that none of it returns with the flood, extensive experiments covering the whole area of the Thames estuary would be necessary.

Glasgow.

230. There are at present (1907) two outfall works at Glasgow—the Eastern or Dalmarnock outfall and the Western or Dalmuir outfall. As has previously been said, the whole of the sludge at Dalmarnock is pressed and disposed of to farmers, either as pressed cake or as Globe Fertiliser. At Dalmuir, with the exception of the grit from the catch pit and the screenings of the sewage, both of which are mostly disposed of by sale to farmers at a price of about 8d. to 1s. per ton., plus railway carriage, the whole of the sludge is taken by the s.s. "Dalmuir," and discharged in about 80 fathoms of water some three miles below Garroch Head, a distance of about forty miles from Glasgow.

The following figures, which have been supplied to us by Mr. Thomas Melvin, relate to the disposal of sludge at Dalmuir for the three years subsequent to the opening of the works in May, 1904 :—

Aggregate Quantities for the 3 Years Ending March 31st, 1907.

Total quantity of sludge produced by precipitation. (Tons).	Average percentage of moisture.	Total quantity deposited at sea. (Tons).	Average number of journeys made per annum by the s.s. "Dalmuir."	Average cost of sending sludge to sea, including all charges except interest and sinking fund and cost of filling ships, per ton of wet sludge.	Average cost, per ton of wet sludge, of handling the sludge after it leaves the precipitation tanks, *i.e.*, the cost of filling the ship.*
915,689	86·81%	915,689	268	$2\frac{5}{10}$ d. full.	$0\frac{9}{10}$ d. full.

The cost of sending the sludge to sea during the year 1906–7, including the cost of filling the ships and the interest and sinking fund for the same period, was $5\frac{4}{10}$d. per ton, for 349,492 tons of sludge containing 85·54 per cent. of moisture. This includes interest and sinking fund on a specially constructed dock, as well as upon the steamer. The loan for the dock and the steamer is repayable, however, in equal instalments extending over the long period of sixty years. If it were repayable in thirty years, the above cost would be approximately $6\frac{2}{10}$d. per ton.

*This includes the cost of fuel for the electrically driven pumps which lift the sludge into the overhead reservoir tank.

Through the courtesy of the Glasgow City Corporation one of our officers was enabled to witness the discharge of sludge into the sea on November 29th, 1907. When the steamer reached a position about 3 miles S.S.W. of Garroch Head, between the Island of Arran and the mainland, the engines were stopped, and while the steamer continued to move slowly, she was turned so as to describe a half-circle of about ¼ of a mile in diameter. All the sludge valves were open during this time (about five minutes), the whole of the sludge being thus discharged. From the bridge of the steamer the sludge could be seen just below the surface of the clear water as a thick brown cloud. It rose to the surface behind the steamer, appearing from a distance as a band of smooth water some 20 or 30 yards wide. Many thousands of gulls which had followed the steamer immediately settled upon this. On turning and passing through the sludge band, after about eight minutes had elapsed since the steamer first began to discharge, it was seen that the band had widened considerably; and after 15 to 20 minutes, during which another turn was made, the sludge was still easily visible, though more disseminated. Probably it disappears entirely in the space of half-an-hour. The impression produced on the observer was that, even with the small tide of two knots an hour, everything but the very heavy solids would be spread over a very large area before reaching the bottom. The depth of the water was about 76 fathoms. We were informed that the tides run straight up and down the Firth, part of the incoming tide flowing between Bute and Little Cumbrae and part turning to the left towards Kilbrennan Sound. No analyses of the water in the neighbourhood of the dumping area have been made by the Local Authorities. We were told that the water in the neighbourhood of the dumping area is a favourite fishing ground.

Manchester.

231. The sludge produced at the Manchester sewage works (Davyhulme) is taken by steamer through the Manchester Ship Canal and deposited in deep water outside the North-west lightship. The lightship is situated in the open sea some 12 miles north of Rhyl and about 25 miles north-west of Liverpool.

The following figures, relating to the disposal of the Manchester sludge during the past five years, have been supplied to us by the Rivers Department of the City of Manchester.

Year ending March 31st.	Nature of sludge.	Total quantity of wet sludge produced. (Tons).	Total quantity of wet sludge sent to sea. (Tons).	Average percentage of moisture in the sludge.	Number of trips made by the steamer.	Total Sea Cost :—			
						Excluding interest and sinking fund charges, and also cost of filling ship.		Including interest and sinking fund charges (onsteamer), but excluding cost of filling ship. ‡	
						Per annum.	Per ton of wet sludge.	Per annum.	Per ton of wet sludge.
1903	Chemical precipitation (mainly) and septic tank sludge	223,100	223,100	—	181	£5,283	5·7d.	£7,273	7·8d.
1904	Chemical precipitation and septic tank sludge	157,100	157,100	*85·0	129	£4,366	6·6d.	£6,356	9·7d.
†1905	Sedimentation and septic tank sludge	148,100	143,800	*85·4	123	£3,994	6·7d.	£5,984	10·0d.
†1906	Do.	155,800	142,200	86·1	136	£4,976	8·4d.	£6,966	11·8d.
†1907	Do.	181,600	176,300	86·7	163	£4,758	6·5d.	£6,748	9·2d.
	Total for 5 years -		842,500			Average	6·7d.	Average	9·5d.

* Percentage of water in septic tank sludge only.

† During these years the sludge steamer also ran on behalf of the Salford Corporation, making the following additional number of journeys :—1905, 44 ; 1906, 36 ; 1907, 25.

‡ Cost of filling ship, including sludge tank attendant, ejector attendant, repairs to ejector, and also including steam production, engines, and interest and sinking fund charges :—
Average—£123 per annum = 0·14d. per ton of wet sludge.

Salford.

232. The sludge from the Salford Corporation Sewage Works at Weaste is also sent through the Manchester Ship Canal and deposited outside the North-west lightship. The following figures, which have been supplied to us by Mr. J. Corbett, the Borough Surveyor, relate to the disposal of the Salford sludge for the years 1902–6 inclusive :—

Year.	Total quantity of sewage dealt with. (Gallons).	Total quantity of sludge produced and sent to sea. (Tons).	Average percentage of moisture in the sludge.	Number of journeys made by steamer.	Total cost, per ton of wet sludge, of sending to sea, including interest and sinking fund, canal dues, cost of filling ship and all other charges.
1902	3,802,182,451	129,000	80·2	215	
1903	3,989,619,000	135,000	78·6	225	
1904	3,335,080,548	134,900	79·5	199	
1905	3,782,877,000	134,900	75·4	184	
1906	4,227,950,000	145,400	81·0	191	
			Average for the five years		9·46d. per ton.

Note.—The percentage of water in the Salford sludge was exceptionally low during the years in question, owing partly to the fact that some old air-dried sludge which had accumulated on the works was mixed with the fresh sludge from the tanks. This had, of course, the effect of reducing the cost of sea disposal per ton.

Dublin.

233. At Dublin the whole of the sludge produced by the precipitation of the sewage with lime is taken to sea in the "s.s. Shamrock" and deposited in about 90 feet of water, some 2 miles N.E.E. of the Bailey Light on Howth. The following figures, which have been supplied to us by Mr. Spencer Harty, show the cost of disposal :—

The figures refer to the year ending October 22nd, 1907.

Total quantity of sewage treated during the year. (Gallons).	Average daily quantity of sewage dealt with. (Gallons).	Total quantity of sludge produced. (Tons).	Percentage of water in sludge.	Total quantity of sludge sent to sea. (Tons).	Number of trips made by steamer.	Cost of sending sludge to sea, including all charges,* except the cost of filling the ship and interest and sinking fund on steamer. (Per ton of sludge.)	Cost of filling ship from sludge reservoir. (Per ton of sludge.)	Total cost of sending sludge to sea, including cost of filling ship, interest and sinking fund on steamer† and all other charges.* (Per ton of sludge.)
4,829,000,000	13,230,000	114,560	90 % (approx).	114,560	320	3·47d.‡	0·049d.	5·02d.

* In the case of Dublin no harbour dues are payable; the Corporation are the owners of Pigeon House Harbour.

† The average interest and sinking fund on the cost of the steamer (£11,139) is given as follows :—

Average sinking fund	£146
Average dividend	£362
Total	£508

The loan for the steamer is included in the loan for the entire main drainage works, and is repayable in 39 years.

‡ In this figure is included an item of £196 6s. 0d. for ropes, ironmongery, uniforms, lamps, clock, bedding, etc. The vessel is a new one, and this was her first equipment. The figure 3·47d. is somewhat high on this account.

Southampton.

234. At Southampton the sludge from the sedimentation tanks is pumped into a barge which is then towed by way of Spithead to a position 3 miles from land, when the sludge is discharged. The operation is carried out by contract, the Corporation paying 1s. 2d. per cube yard of sludge. The contractor supplies the barge and the tug. The capacity of the barge is 114 cube yards. The following figures relating to Southampton have been supplied by Mr. J. A. Crowther:—

The figures refer to the year ending March, 1907.

Total quantity of sludge sent to sea.	Percentage of moisture in the sludge.	Number of journeys made by tug with barge.	Cost of disposal, excluding cost of filling barge and interest and sinking fund on pumping machinery.
16,896 cube yards or about 13,950 tons.*	about 90.	149	1s. 2d.† per cube yard or about 1s. 4·9d.* per ton.

* These are calculated figures; they are only approximate.
† This is the contract price.

235. SUMMARY OF FIGURES RELATING TO COST OF SEA DISPOSAL.

A. Place.	B. Year or years to which the figures refer.	C. Average annual quantity of sludge deposited at sea. (Tons).	D. Average percentage of water in sludge actually deposited.	E. Total cost of sea disposal, including cost of filling ship, interest and sinking fund, steamer dues and all other charges. (Per ton of sludge actually deposited.)	F. Total cost of sea disposal, including cost of filling ship, interest and sinking fund, steamer dues and all other charges. (Per ton of *dry solid matter*.)	G. Total cost of sea disposal, including cost of filling ship, interest and sinking fund, steamer dues and all charges; calculated as per ton of sludge containing 90 per cent. of water.	H. Remarks.
Glasgow -	1906-7.	305,000	86·8	5·40d.	40·9d.	4·1d.*	Large quantity of thick sludge. Loan repayable in 60 years.
Salford -	1902, 3, 4, 5, and 6.	136,000	79·0	9·45d.	45·0d.	4·5d.*	Heavy canal dues. Very thick sludge.
Dublin -	1906-7.	114,560	90·0 ap.	5·02d.	50·2d.	5·0d.*	No harbour dues and short distance to dumping area.
London -	1903, 4, 5, and 6.	2,534,000	92·0	4·55d.	56·9d.	5·6d.*	Very large quantity, but thin sludge.
Manchester-	1903, 4, 5, and 7.	168,500	86·0 ap.	9·64d.	68·9d.	6·9d.*	Heavy canal dues.
Southampton	1906-7.	13,950	90·0 ap.	16·9d.	169·0d.	16·9d.	By contract.

* These are figures obtained by calculation, on the assumption—which is probably not quite correct—that it is as easy to deal with dense as with liquid sludge. There would probably be more wear and tear of machinery in the case of dense sludge, but on the other hand the same amount of solid matter in the form of liquid sludge might need more steamer capacity. The figures in column G. must therefore be taken as giving only an approximate idea of comparative costs.

Pressing of Sludge.

236. The plan of pressing sludge is adopted at a large number of places. Strictly speaking, it is not a method of disposing of the sludge finally ; but at by far the greater number of places where pressing is done, it has the effect of converting the sludge into a form in which it can either be sold to farmers for a return of something like 6d. per ton, or can be tipped or buried without serious expense. For this reason it may generally be considered an effective means of disposing of sludge.

Very briefly, the plan is as follows :—The sludge produced by the settlement of the sewage, with or without the addition of chemicals, is first run, or pushed by hand labour, from the settling tanks into a sludge well or tank. In this well it is allowed to settle for some little time, and, after the supernatant liquor has been drawn off, the thick sludge is mixed with from 0·5 to 1 per cent. of lime (or even more) in the form of milk of lime and then forced by means of compressed air into filter presses. In this way, on the average, something like 30 or 35 per cent. of the water in the wet sludge (which may be taken at approximately 90 per cent. on the average) is removed, leaving a moist but solid cake which may contain from 50 to 65 per cent. of water. The liquid pressed from the sludge is run back into the settling tanks for re-treatment. It is strongly alkaline, owing to the lime which has been added to the wet sludge. The pressed cake is scraped from the press-cloths into trucks and either sold to farmers, buried, or tipped. The cost of the process, excluding interest and sinking fund in respect of the pressing plant, may be put at from 2s. to 5s. per ton of pressed cake produced. As will be seen from the appended table, however, it varies largely at different places, depending mainly upon :—

(*a*) The amount of lime added to the sludge ;
(*b*) The kind of sludge pressed ;
(*c*) The size of the works at which the plan is adopted.

The variation in cost, dependent upon the kind of sludge to be pressed and the amount of lime to be added, is readily seen from the table.

As regards the variation in cost, dependent upon the kind of sludge to be pressed, it may be pointed out that the solid matter in septic tank sludge, especially in sludge from a tank which has been in use for a long time (say, a year) without cleaning, is generally in a very fine state of division. For this reason, a large quantity of lime has usually to be added to it, in order to prevent the press-cloths becoming clogged. At Hanley, it is true, only a very small amount of lime is used, but the septic tanks are cleaned out at short intervals (once every month), and there is a considerable quantity of "clay slip" in the sewage, which apparently helps the settlement and possibly delays the putrefaction of the sludge in the septic tanks. It is to be noted also that the milk of lime is added hot at that place.

At Nelson and at Burnley, where septic tank sludge is pressed, the quantities of lime added are respectively 9·6 per cent. and 15 per cent. of the pressed cake, and the cost of pressing, excluding interest and sinking fund, is 4s. 6·9d. and 4s. 3·4d., respectively. At Rochdale it was found necessary to add at least twice as much lime to the septic tank sludge as was required for the pressing of the chemical precipitation sludge, viz., 10 per cent. as against 5 per cent., calculated on the pressed cake. At York, so much lime had to be added to the septic tank sludge, in comparison with the amount required for the treatment of sludge from precipitation tanks, that the process was abandoned as being prohibitively costly.

2,630. We may refer also to the evidence given by Dr. James B. Wilkinson, who said that at Oldham they had found great difficulty in pressing the sludge from septic tanks.

In some cases, unusually large quantities of lime are added to precipitation sludge before pressing, but this is where manufacturing waste of a greasy nature finds its way into the sewers, or where, as in the case of Ealing, a specially hard cake is made, in order

COST OF PRESSING SLUDGE.

In all cases, unless otherwise stated, the cost of pressing is taken as beginning when the sludge is out of the sedimentation tanks and is ready to be pumped into the presses. The cost of sludging the sedimentation tanks is not included. The cost of pressing is taken as ending when the pressed cake is in the trucks below the presses.

A	B	C	D	E	F	G	H	I	J	K	L
Place.	Year to which the figures refer.	Population.	Kind of sludge pressed.	Proportion of lime added to the sludge for the purpose of pressing; stated as per cent. of :—		Cost of pressing the sludge, including labour, fuel, lime, press-cloths, repairs and renewals, but excluding interest and sinking fund on pressing plant.		Cost of pressing the sludge, including labour, fuel, lime, press-cloths, repairs and renewals, *and also* interest and sinking fund on pressing plant.		How the pressed cake is disposed of.	Remarks and Notes.
				(a) The wet sludge.	(b) The pressed cake.	(a) Per ton of wet sludge.	(b) Per ton of pressed cake.	(a) Per ton of wet sludge.	(b) Per ton of pressed cake.		
Hanley	1907	66,000	Septic tank and detritus tank sludge	0·35%	1·43%	4·75d.	1s.7d.	5·75d.	1s. 11d.	Tipped at the works.	At Hanley the milk of lime is added hot to the sludge, as the latter is pumped into the sludge well. The mixture is then allowed to stand for several days before pressing. The septic tanks are cleaned out once a month.
Glasgow (Dalmarnock)	1906–7	300,000	Chemical precipitation sludge.	0·416%	2·50%	3·9d.	1s. 11·6d.	4·66d.	2s. 4d.	The pressed cake is sold to farmers at 8d. to 1s. per ton in bulk. The farmer pays carriage.	
Leyton	1906–7	120,000	Chemical precipitation sludge.	0·75%	3·75%	4·80d.	2s.	—	—	For some time past the greater part of the pressed cake has been burnt in a refuse destructor, the remainder being given away to farmers. This year (1907) the Authorities are entering into a short agreement with a contractor to load up the cake into trucks on the railway adjoining the works, the contractor to pay 6d. per ton for the cake in the trucks.	
Stockport	1906–7	91,500	Chemical precipitation sludge.	0·85%	3·25%	6·26d.	2s. 0·02d.	7·91d.	2s. 6·31d.	Given away to farmers.	
Wolverhampton	1906–7	101,000	Chemical precipitation sludge.	0·49%	2·10%	5·63d.	2s. 0·28d.	6·48d.	2s. 3·94d.	Partly by tipping (56 per cent.) and partly by barging to farmers. In the latter method of disposal the cake is conveyed in the Corporation barges to the farmers, at a nominal charge of £1 per boat load. This does not always cover the cost of conveyance and upkeep of boats, etc. The average loss is 1s. 2d. per boat-load of 2 tons, or 0·73d. per ton of cake.	
Bolton	1906	170,000	Chemical precipitation sludge.	1·12%	5·6%	5·4d.	2s. 2·9d.	10·2d.	4s. 2·9d.	Removed by farmers, the Corporation paying 3d. per ton of pressed cake.	
Bury	1906–7	50,000	Chemical precipitation sludge.	0·67%	3·62%	5·2d.	2s. 4d.	—	—	Given away to farmers free of charge. Assistance is given in loading.	The figures of cost for Bury include the cost of sludging the precipitation tanks. This addition to the cost is very small, however, as it involves the labour of only one man.
Richmond (Surrey)	1907	62,885	Chemical precipitation sludge with some septic tank sludge.	1·0% ap.	5·0% ap.	5·6d.	2s. 4d.	7.2d.	3s.	The pressed cake is tipped into barges and taken away by a contractor who supplies the barges. It is sold by him to farmers in Essex and Kent. The cost to the Richmond Main Sewerage Board in 1907 was 1s. 9d. per ton of pressed cake or 4·25d. per ton of wet sludge.	With regard to the capital expenditure, it should be noted that the engine plant and machinery is in duplicate. The plant is only worked one shift of 10 hours per day; if it were worked in two shifts, the cost of pressing, including interest and sinking fund, would be 6·4d. per ton of wet sludge, or 2s. 8d. per ton of pressed cake.
Hyde	1903	32,000	Chemical precipitation sludge.	1·25%	3·75%	10d.	2s. 6d.	1s. 3·3d.	3s. 10d.	Removed by farmers, free of cost, with the exception of a surplus quantity, for which 9d. per ton was paid to clear it away.	The figures of cost for Hyde include the cost of tank sludging. This is a small item, however, and only raises the cost very slightly.
Great Harwood	1906–7	22,500	Chemical precipitation sludge.		3·0%	—	2s. 6·2d.	—	3s. 7·2d.	Sold to farmers at 6d. per ton.	
Chorley	1906–7	26,500	Chemical precipitation sludge.	0·42%	4·25%	3·21d.	2s. 8·2d.	—	—	By sale to farmers: tons cwts. 1s. 6d. per 1-horse load = about 1 10 1s. 9d. per 2-horse load = about 2 0	
Wimbledon	1906–7	52,500	Chemical precipitation sludge.	1·0%	5·0%	7·25d.	3s. 1d.	8·75d.	3s. 7·75d.	By burying and burning.	
Royton	1906–7	12,500	Chemical precipitation sludge.		4·14%	—	3s. 2d.	—	4s. 1d.	Given away to farmers, who remove it themselves.	The figures of cost for Royton include the cost of sludging the tanks. This item is small, however, and against it must be put the fact that the steam required for the pressing is raised by Destructor fire. The cost of coal is included in the figures, but coal is only used to assist in raising the steam.
Leigh and Atherton	1906–7	63,600	Chemical precipitation sludge.	—	4·3%	—	3s. 4·98d.	—	4s. 1·58d.	Part deposited on portions of sewage farm not used for sewage treatment, and part sold to farmers at a present price of 1s. per 1-horse load and 1s. 6d. per 2-horse load. This is about 6d. per ton on the average.	The figure for cost of pressing, including interest and sinking fund, is estimated.
Middleton	1906–7	25,600	Settling tank sludge	0·67%	4·6%	6·5d.	3s. 7d.	7·5d.	4s. 1d.	Given away to farmers.	
Willesden	1905, 6 and 7	66,000	Chemical precipitation sludge.	2·2%	13·35%	8d.	3s. 9.2d.	8·58d.	4s. 0·78d.	Mostly by tipping on the sewage farm. During the early part of the present year (1907), however, a portion of the pressed cake has been disposed of to farmers, who have paid the cost of the railway freight only, the Council paying the cost of the carriage to the railway station.	The large percentage of lime used in the pressing of sludge at Willesden is due to the fact that the sewage there contains much laundry waste, and is of a rather greasy character.
Burnley	1905–6	80,000	Septic and detritus tank sludge.	3·4%	15·5%	12·85d.	4s. 3·45d	1s 1·96d.	4s. 7.91d.	Sold at the sewage works to farmers for 10d. per ton.	
Colchester	1906–7	41,000	Chemical precipitation sludge.	2·8%	11·2%	12·75d.	4s. 3·5d.	1s. 3·25d.	5s. 1d.	The pressed cake is disposed of to farmers at a price of 1s. per cart-load.	
Ealing (Southern Works)	1906–7	40,000	Chemical precipitation and settling tank sludge.	5·0%	20·0%	10·4d.	4s. 4d.	11·70d.	4s. 10·5d.	The cake is dropped into trucks and conveyed by hydraulic lift to refuse destructors, where it is burnt.	The sludge is pressed specially well at Ealing, on account of the subsequent burning.
Maidenhead	1906–7	14,000	Chemical precipitation sludge.	—	4·2%	—	4s. 4·1d.	—	—	All the pressed cake and also a fair proportion of air-dried sludge is sold to farmers and market gardeners at 6d. per cart-load.	
Nelson	1906–7	37,000	Septic and settling tank sludge.	—	9·6%	—	4s. 6·9d.	—	6s. 0·4d.	Given away to farmers.	The labour cost in connection with the sludge pressing is estimated.
A	B	C	D	E	F	G	H	I	J	K	L

To face page 168.

that it may subsequently be burnt. Generally speaking, there is no difficulty in pressing the sludge from precipitation or sedimentation tanks. It may be pointed out that the sludge from simple sedimentation requires, as a rule, the addition of more lime than the sludge derived from sedimentation after precipitation with chemicals; this is indicated in the table.

It may be useful to add here that success in pressing, whatever kind of sludge is being dealt with, depends very largely upon the intimate mixture of the milk of lime and the sludge. The dissolved lime has the effect of agglomerating the solids of the sludge, while the fine particles of undissolved lime, becoming interposed between the sludge particles, apparently provide small channels for the escape of the water. We may also mention that at York, Mr. Graham, the manager of the Sewage Works, found it useful to allow a small quantity of milk of lime to pass into the presses before the sludge, as the thin coating of solid lime thus formed on the press-cloths facilitated the subsequent pressing of the sludge and the removal of the cake.

Nuisance from Smell.

237. Speaking generally, properly pressed sludge when in the form of a solid cake does not give rise to serious nuisance from smell, and if exposed to the air in dry weather, it soon becomes entirely inoffensive. It has, however, a slight smell of fresh sewage, and if kept moist, *e.g.*, if it is exposed to the air during wet weather, it soon becomes putrid and gives rise to offensive odours. For this reason it should, if possible, be stored under cover, until it can be spread over land or dug into trenches or buried. At York, where a large quantity of pressed cake was tipped in the open, considerable nuisance is said to have arisen until Mr. Creer, the city engineer, adopted the plan of burying it, 5 or 6 feet thick, under a thin layer of soil and turf, when the nuisance entirely ceased. Incidentally, an uneven field is being levelled in this way.

Since there is almost always serious nuisance inside the press house, it is necessary that the house should be properly ventilated. It should also be situated as far as possible from any habitation, if complaint of nuisance is to be avoided.

Disposal of the Pressed Cake.

238. Pressed sludge can usually be disposed of to neighbouring farmers at about 6d. per ton. This, however, depends to a considerable extent upon the district in which the sewage works are situated. In some cases, *e.g.*, at Bury, Ealing (Northern Works), Wolverhampton, and Richmond, where the works are situated in densely populated districts, or are far removed from a railway, or in the case of a large town where the amount of sludge is greater than the neighbouring farmers require, the pressed cake has to be given away, or a small fee has to be paid for its removal.

The form of the pressed cake also affects its saleability: *e.g.*, at Burnley, where the Corporation break up the pressed cake immediately after pressing, a ready market is now obtained.

Composition of Pressed Cake.

239. The following figures of analysis give the chief mineral constituents and the nitrogen in the pressed cake from Chorley (Lancashire) and Dorking (Surrey), after complete drying at 110° C. These may be taken as more or less typical for domestic sewage, but there is more than the average quantity of lime in the Dorking pressed cake. The Chorley sludge is produced by the addition of about 9 grains per gallon of alumino-ferric to a sewage which is almost entirely domestic in character and of about average strength. The Chorley drainage area is sewered on the combined system. The Dorking sludge is obtained by the addition of about 5 grains per gallon of lime to a sewage of rather over average strength, and which, except for a small quantity of

brewery waste, is also almost entirely domestic in character. Dorking is sewered on the partially separate system.

	Chorley pressed cake after drying at 110° C. Sample drawn in April, 1905.	Dorking pressed cake after drying at 110° C. Sample drawn in April, 1905.
Grit, etc. (*i.e.*, matter insoluble in hydrochloric acid, after ignition)	25·30	6·84
Oxides of iron and alumina *	9·37	3·46
Lime †	10·32	23·16
Phosphoric acid (P_2O_5) ‡	0·98	0·66
Equivalent to tribasic phosphate of lime	2·14	1·44
Nitrogen (total) ‡	1·28	0·89
Nitrogen evolved on boiling the sludge for two hours with dilute (0·5 per cent.) potash solution	0·13 (May 21st.)	0·03 (May 20th.)

At Chorley the cake is sold for about 10d. to 1s. per ton, but at Dorking it is given away.

The calculated value of those two sludges in the form of pressed cake (50 per cent. moisture), as judged by their manurial constituents alone, is about 6s. to 7s. per ton, but, as experience shows, the market value is less.

Cost of Pressing Sludge.

240. In the majority of the cases cited in the table it has been impossible to ascertain the actual percentage of water in the wet sludge dealt with and in the pressed cake produced. We think, however, that it may be taken broadly that wet sludge contains on the average from 90 to 95 per cent. of water, and pressed cake about 55 per cent. of water. Upon this basis, and dividing our examples into two groups, we estimate the cost of pressing sludge as follows :—

Group I.

In this group we include towns having a population of about 30,000 and upwards, where the preliminary treatment consists either in chemical precipitation followed by sedimentation or in simple sedimentation, and where the sewage does not contain manufacturing waste of a kind likely to necessitate the addition of an unusual quantity of lime to the sludge before pressing.

If the sludge derived from precipitation or sedimentation tanks in these circumstances were to be pressed, it would require the addition of about 2 to 4 per cent. of lime, calculated on the pressed cake produced ; and the cost of pressing, including lime, fuel, labour, press cloths, renewals and repairs, but excluding interest and sinking fund, would amount to from 2s. to 2s. 6d. per ton of pressed cake (55 per cent. water). This would be equivalent to from 5·3d. to 6·6d. per ton of wet sludge, containing 90 per cent. of water.

The interest and sinking fund charges, as given in the table, vary from 4½d. to 1s. 1d. per ton of pressed cake produced, or an average of 9d. per ton of pressed cake. This would be equivalent to 2d. per ton of wet sludge containing 90 per cent. of water. On this basis the *total* cost of pressing, including lime, fuel, labour, press-cloths, renewals and repairs, and also interest and sinking fund, would amount to from 2s. 9d. to 3s. 3d. per ton of pressed cake produced (55 per cent. water), or from 7·3d. to 8·66d. per ton of wet sludge, containing 90 per cent. of water.

Assuming that the pressed cake could be disposed of to farmers without further cost at a price of 6d. per ton, the total cost of sludge disposal at such places would be approximately from 6d. to 7·3d. per ton of wet sludge, including interest and sinking fund charges.

* These oxides will contain the phosphoric acid and possibly a very little of the lime.

† The lime was only precipitated once ; it will contain traces of magnesia.

‡ The figures for phosphoric acid and for total nitrogen are the mean of two closely agreeing estimations.

Group II.

In this group we include towns having a population under 30,000 and also places where 5 to 20 per cent. of lime (calculated on the pressed cake) has to be added to the sludge before pressing, either because the sewage contains much grease, or because septic tank sludge has to be dealt with.

At such places the cost of pressing, including lime, fuel, labour, press-cloths, renewals and repairs, but excluding interest and sinking fund, would probably vary from 3s. to 5s. per ton of pressed cake (55 per cent. water), or from 8d. to 1s. 1½d. per ton of wet sludge containing 90 per cent. of water.

The cost of pressing, including lime, fuel, labour, press-cloths, renewals and repairs, and also interest and sinking fund, at such places would be from 3s. 9d. to 5s. 9d. per ton of pressed cake (55 per cent. water), or from 10d. to 1s. 3½d. per ton of wet sludge containing 90 per cent. of water.

Assuming that the pressed cake could be disposed of without further cost at a price of about 6d. per ton, the net cost of sludge disposal at these places would be from 8·66d. to 1s. 2d. per ton of wet sludge, including loan charges.

From these figures it will be seen that, in the case of large towns, the cost of the disposal of sludge by pressing is about the same as the cost of depositing it at sea. For small towns or for places where septic tank sludge has to be disposed of, the cost is considerably greater. In all cases the cost turns very much upon whether there is a ready sale for the pressed cake, and this is dependent upon having facilities for carting or sending by rail to outlying districts. The pressed cake is worth much more than 6d. per ton, judged by its manurial constituents; the reason that it fetches such a low price is the relatively high cost of carriage upon a mixture containing of necessity a large proportion of water, grit, and carbonaceous matter.

Shallow Burial of Sludge in the Ground.

241. This plan of sludge disposal consists in mixing the wet sludge from precipitation, settlement, or septic tanks as rapidly and as thoroughly as possible with surface soil. It is usually carried out in the following manner: Small V-shaped trenches, about 2 feet wide at the top and (excluding banking above the surface of the soil) about 1 foot deep, of sufficient capacity to hold the quantity of wet sludge to be disposed of, are cut, if possible, a month or even two months before they are likely to be required, in order to dry and disintegrate the soil. The wet sludge is then run into the trenches and immediately covered over by shovelling in the earth of the banks. The area thus treated is allowed to remain untouched until it is fairly dry, after which it is ploughed and either set aside for cropping or used again for more sludge.

This plan is not widely followed at present, excepting at sewage farms, but it has lately been worked with considerable success by Mr. J. D. Watson, at Birmingham, Mr. C. G. Mason, at Guildford, and Dr. G. J. Fowler, at Withington, in conjunction with artificial filters. By this plan the sludge is cheaply and effectively disposed of, but in wet weather the trenches, both empty and full, require a long time to dry, and, where an offensive sludge has to be dealt with, local nuisance from smell may easily arise.

At Birmingham, where the septic tank sludge has very little smell, little or no nuisance arises, notwithstanding the enormous quantities dealt with; but at Guildford, owing to the presence of brewery waste in the sewage, there is considerable smell from the trenches. We may point out, however, that strongly smelling sludge can be to a large extent deodorised by the addition of a moderate quantity of lime, and for this reason, though we have no practical experience of the plan, we think that at those places where an offensive sludge had to be dealt with, serious nuisance could be avoided without great cost. At small or medium-sized works, where septic tanks are in use and are cleaned out, say, once every six months, it appears to us that it would be quite practicable to add sufficient lime to the sludge to deodorise it, *before conducting it to the trenches*. This method of disposal would be peculiarly suitable for the treatment of the sludge which is removed from septic tanks at fairly long intervals of time, for in that case a period of dry weather could be selected for the trenching operations.

Area of Land Required.

242. With regard to the kind of land and the area required for the annual disposal of 1,000 tons of wet sludge (90 to 95 per cent. of water), we may quote some particulars which have been given to us.

Mr. J. D. Watson writes (April, 1907) :—

"I cannot differentiate between one kind of land and another, since we have in "the valley of the Tame a great variety of soil. . . . Even in one field we have "occasionally considerable areas of very close marl and equally great areas of "fairly porous gravelly marl. The figure which I give, therefore, is one which "embraces various kinds of soil, but as it is the result of an average taken over "three years, I think it may be assumed to be fairly accurate as representing "*medium quality* of land."

The following table shows the amount of wet sludge dealt with at Birmingham and the area of land used in the form of trenches :—

Year.	Tons of wet sludge dealt with by trenching.	Area of trenches in square yards.	Area of trenches in square yards per 1,000 tons of wet sludge.
1903–4	208,350	265,870	1,276
1904–5	239,203	248,132	1,038
1905–6	109,255	74,167	680
1906–7	104,780	82,747	788

"Climatic conditions have also a considerable bearing upon this question. "In dry weather more sludge can be got rid of on the same area of land than "in wet weather. Methods of working have also a good deal to do with the "results obtained. For instance, where possible it is advisable to cut the trenches "a month or two in advance of their being required, in order to dry the land as "thoroughly as possible. . . .

"Speaking generally, I should say that a quarter of an acre of medium quality "land, worked under usual conditions in this country, is amply sufficient to deal "with 1,000 tons of wet sludge (90 per cent. to 95 per cent. water) per annum."

Mr. C. G. Mason writes (April, 1907) :—

"During 1906, 18,720 tons of liquid sludge were applied to nine acres of "land at Guildford. In the winter months one acre is sufficient to deal with "approximately 2,000 tons, and in the summer months nearly twice that "quantity can be dealt with on the same area of land. The land available for "sludge purposes at Guildford may be described as excellent, consisting as it does "of a light sandy loam, overlying a bed of sand to the depth of 6 feet, with "the water level from 3 to 6 feet below the surface, according to season."

Mr. Mason says that he has not had any experience in dealing with liquid sludge upon unsuitable land, but from general experience he estimates the areas required annually for the disposal of 1,000 tons of wet sludge to be as follows :—

Good land - - - - - - - - - - - - - ½ acre.
Medium land - - - - - - - - - - - - 1 „
Bad land - - - - - - - - - - - - - 2 acres.

"The plan of trenching has certainly been very successful at Guildford, and has "saved the Corporation a large sum yearly from its inception, but I should not care "to make an experiment with wet stiff clay land, an absorbent sub-soil being to "my way of thinking an essential necessity for trenching the precipitated matter "from sewage tanks."

As regards the Withington Sewage Works of the Manchester City Corporation, where the same plan of sludge disposal has been adopted, Dr. G. J. Fowler writes (January, 1908) as follows :—

"The soil at Withington may be described as a sandy loam with a water-logged "subsoil. I should certainly class it as 'medium' soil. For the annual disposal "of 1,000 tons of wet sludge I am of opinion that two acres of such soil should "be provided, though the more soil you have at your disposal the better. Some-

"thing will here depend upon the character of the sludge. The Withington sludge "itself contains a good proportion of sand (77 per cent. SiO_2; 1·76 per cent. "Al_2O_3); a sludge containing a larger percentage of clay, *e.g.*, Davyhulme sludge "(44·3 per cent. SiO_2; 20·85 per cent. Al_2O_3), might require a greater area of "such land.

"Even with the best sandy soil I should recommend, if possible, one acre per "1,000 tons of wet sludge, if it is to be dealt with to the best advantage.

"I am very doubtful whether it is possible to dispose of sludge on clay land, "without some provision of shallow lagoons artificially drained, *e.g.*, by banks of "clinker at frequent intervals.

"Some addition of lime is advisable in all cases where this has not been added "in the course of chemical treatment, either to neutralise the acid produced by "the decomposition of fats or the sulphuric acid produced by the oxidation of "sulphides in sludge from septic tanks."

Allowing ample margin for contingencies, cropping and bad weather, we should from these figures recommend the provision of the following areas of land for the yearly disposal of 1,000 tons of wet sludge (90 to 95 per cent. water):—

Good or fairly good soil	1 acre.
Medium soil	2 acres.
Stiff clay soil,—at least	3 „

Care would have to be taken, as Mr. Watson suggests, to prepare the trenches beforehand, so that the soil might be as dry as possible, and also to remove the sludge from septic tanks in the dry season of the year.

It would be important, moreover, in calculating the amount of sludge likely to be produced at a given place, to include storm water sludge, especially if *stand-by tanks were used for the treatment of the storm water. Tanks of this kind would have to be frequently sludged, and consequently special areas of trenches would be required.

At those places where continuous filters of coarse material were adopted, it would also be necessary to provide for the disposal of the sludge settled out from the effluent.

It must not be forgotten that the disposal of sludge upon land is temporarily interfered with by snow and frost.

Cost.

243. As regards the cost of sludge disposal by burial in the ground, the following particulars relating to Birmingham, Guildford, and Withington have been supplied to us. In all three cases the cost is taken as beginning after the sludge has left the sedimentation tank (*i.e.*, the actual sludging of a tank is not included), and as ending when the trenches are filled in with earth.

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TOTAL COST OF CONVEYING SLUDGE TO THE LAND AND DEPOSITING IT IN TRENCHES CUT FOR THE PURPOSE.

	Year 1905.	Year 1906.	First 11 months of 1907.
Working expenses of steam plant and attendance:	£. s. d.	£. s. d.	£ s. d.
Engineers and Stokers	65 16 2	70 4 6	76 3 9
Oil, waste, valves, etc.	100 0 0	106 0 0	92 0 0
Coal	83 16 3	89 8 9	77 12 6
Digging trenches, covering sludge, filling in trenches, etc.	719 18 2	644 6 9	516 9 0
Total working cost	969 10 7	910 0 0	762 5 3
Interest on Capital Outlay at 5 per cent., viz., Pump House, Sludge Main, etc.	220 0 0	213 0 0	130 0 0
Rent of land	23 0 0	22 0 0	13 0 0
Total cost, including interest on capital	£1,212 10 7	£1,145 0 0	£905 5 3
Total amount of wet sludge dealt with (90 per cent. to 95 per cent. water)	Tons. 84,890	Tons. 61,996	Tons. 48,872

* *See* section dealing with treatment of Storm Water Sewage, page 204.

At Birmingham the total cost of this method of sludge disposal, including labour, pumping, fuel, interest and sinking fund and rent of land, was therefore approximately 4·0d. per ton of wet sludge containing from 90 to 95 per cent. of water.

Guildford.

Total cost of conveying the sludge to the land and depositing it in trenches cut for the purpose. The figures refer to the year 1905–6.

	£	s.	d.
Two men employed continuously for regulating and covering in the sludge	101	8	0
One man 3 days per week attending to steam boiler and sludge pump	31	4	0
Firewood for boiler (4 loads @ £1)	4	0	0
Disinfectants	20	0	0
30 tons of fuel for generating steam for pumping sludge	36	0	0
Renewals and sundries	2	8	0
Annual working cost	195	0	0
Add interest and sinking fund for 17 acres of land	252	15	3
	447	15	3

The total quantity of liquid sludge dealt with during the year was 18,720 tons. The cost at Guildford was thus 5·2*d.* per ton of wet sludge, containing from 90 to 95 per cent. of water.

Withington.

The following statement relative to the cost of trenching at Withington has been given to us by Dr. Fowler (January, 1908):—

"The cost of excavating a measured trench, capable of holding 1 cubic yard of "sludge, has been found by the manager of the Withington Works, Mr. C. H. Ball, "to be 1·3d. This low cost is due to the fact that the soil thrown up on either side "of the excavation practically doubles the holding capacity.

"Taking the average cost for the whole year per ton of wet sludge for cutting "and filling trenches, it comes to 2·4d. and the total cost for sludge disposal works "out at about 5·5d. This is exclusive of the rent of land, which would bring the "total up to about 7·0d., if only so much land is charged for as is absolutely "necessary."

The population draining to the Withington Works is approximately 59,000. The total annual production of wet sludge is something like 14,000 tons.

Lagooning or Air Drying.

244. A lagoon in connection with sludge disposal may be described as an earth tank, from 1 to 6 feet deep, constructed by excavation and banking, or banking alone, with a bottom layer composed of clinker or some such material, in which are laid one or two drains. Occasionally the whole enclosure is constructed of clinker, the banking being made with an easy slope, formed naturally by the fall of the clinker.

Lagooning consists simply in filling such a tank with wet sludge, by gravitation or by pumping, and allowing it to remain there until, partly by evaporation and partly by draining, the sludge becomes dry enough to be removed by spade. When the sludge reaches this state, it is usually wheeled out of the lagoon and dumped on waste land.

There is in our opinion very little to be said for the lagooning of sludge. Once in the lagoon the sludge may take from 2 to 6 months to dry, according to the weather, and during the greater part of this time smell may be said to arise from it. Further, when the sludge is dry enough to be removed, it has still to be disposed of, and being usually moist and closely bound together, it is not readily taken by farmers. The time required by the sludge to dry, however, depends to a great extent upon the depth and the draining of the lagoon. At Darwen, where a large quantity of lime is added to the sludge, and where this mixture is given further settlement in special tanks, the lagoons are only filled to a depth of about 1 foot. As the result of this whole procedure, the

sludge is usually just spadeable in 2 or 3 days—a very short space of time. It is then given away to farmers, the Corporation filling the carts free of charge. At Accrington the lagooned sludge, when dry enough to be spadeable (this takes from 2 to 3 months in dry weather, while in wet weather it may require about 6 months), is sent up the steep side of the quarry in which the works are situated, by means of a truckway, and deposited in canal barges, to be taken to the more purely agricultural districts of West Lancashire. The barge owners pay, on the average, about £2 10s. per barge load of 45 tons. The barges are loaded by the Joint Sewerage Board, the average cost of filling a boat from the works being about 25s.

At Leeds lagooned sludge has gradually accumulated during the past ten years, only a few thousand tons per annum having been disposed of to farmers. We are, however, informed by Mr. G. A. Hart that, as the result of practical advertisement, arrangements have now been made for reducing those accumulations, the sludge being sent by rail or canal to the agricultural districts around Leeds. The loading costs the Corporation 1s. 2d. per ton of sludge (60 per cent. moisture), the farmers who receive it paying the carriage, which amounts to about 1s. 6d. per ton. During the past 7 months 6,000 tons have been disposed of in this way.

It is possible to lessen very greatly the smell from a sludge lagoon by covering the surface of the sludge with soil. This can only be done, however, after the sludge has been in the lagoon sufficiently long to allow of its surface drying into a cake. The plan, moreover, is one which might result in serious danger to workmen or children, especially if the lagoons were deep.

Covering Land with Sludge.

245. This plan consists in simply flooding an area of flat land, which has previously been ploughed, with wet sludge to a depth of 3 or 4 inches. In a few days the liquid portion of the sludge drains away, leaving a layer of sludge which cracks and curls up as it dries. The only examples of the method that we are acquainted with are at Birmingham and Bolton. At Birmingham Mr. J. D. Watson has carried out the plan with success. In his evidence he stated :—

"If the sludge has been subjected to digestion in septic tanks for a sufficiently "long period, it loses its characteristic pungent and offensive odour. It may either "be pumped into trenches or even put on the surface of land and exposed to the "air until dry, without giving rise to smell; when thus treated it rapidly settles "down in bulk, and as it dries the surface cracks up. In the course of a few "months it assumes the appearance of a rich black soil." Watson, 25,034

At Bolton a somewhat similar plan is adopted for the disposal of part of the precipitation sludge from the Hacken sewage works. In this case the land is first ploughed and the sludge is allowed to spread over it, the flow being equalised as much as possible by means of cross grips cut through the furrows. Another plan which is adopted, when possible, is to drill the soil (as for mangolds) and then run the sludge along the bottom of the drills. When the sludge is dry, it is covered over by ploughing or splitting the drills and a crop is taken.

The land treated in this way at Bolton is either sandy clay loam or sandy gravel.

Mr. Ashton, the Manager of the Bolton works, estimates the area of land required for the annual disposal of 1,000 tons of sludge containing 90 per cent. of water as follows :—

(1) Good, or fairly good soil - - - - - - - $\frac{3}{4}$ of an acre.
(2) Medium soil such as sandy loam - - - - - 1 acre.
(3) Heavy soil - - - - - - - - - - - 2 acres.

The plan would be quite unsuited for strongly smelling sludge, unless the land used for the purpose were far removed from houses or public roads, or unless the sludge were deodorised in the first instance by the addition of lime or some other suitable substance.

Sludges which give rise to little or no smell are very exceptional. The Birmingham septic tank sludge is comparatively free from smell, but the majority of septic tank sludges from domestic sewage, even when they have remained for a long period of time in the tank, are very far from odourless. We have made no observations at Bolton, but the sewage there contains much manufacturing waste, which may possibly keep down smell.

Cost.

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246. Two sets of figures have been given to us by Mr. Watson, viz., the cost of disposing of the sludge from the Saltley septic tanks, and the cost of disposing of the sludge from the Dortmund or silt tanks at Minworth, these latter being used for the further settlement of the septic tank liquor before filtration. In the first case the sludge is pumped, but in the second no pumping is necessary. In both cases it is septic tank sludge that is dealt with.

TOTAL COST OF CONVEYING THE SEPTIC TANK SLUDGE FROM SALTLEY TO THE LAND AND DEPOSITING IT.

Working expenses of steam plant and attendance.	Year 1905.	Year 1906.	First 11 Months of 1907.
	£ s. d.	£ s. d.	£ s. d.
Engineers and Stokers	33 13 9	26 10 10	48 11 8
Oil, waste, valves, etc.	44 0 0	34 13 4	58 13 4
Coal	37 2 6	29 5 0	49 10 0
Distribution of sludge over land	45 13 3	50 7 4	42 12 1
Total working cost	160 9 6	140 16 6	199 7 1
Interest at 5% on Capital outlay—viz., Pump House, Sludge Main, etc.	130 0 0	137 0 0	191 0 0
Rent of land	13 0 0	16 0 0	19 0 0
Total cost, including Interest on Capital	£303 9 6	£293 16 6	£409 7 1
Total amount of wet sludge dealt with (90% to 95% water)	50,365 tons	42,278 tons	71,265 tons

The cost of this method of disposal was thus **1·47**d. per ton of wet sludge, containing from 90 to 95 per cent. of water.

TOTAL COST OF CONVEYING SEPTIC SLUDGE FROM MINWORTH AND DEPOSITING IT ON THE LAND.

	Year 1905.	Year 1906.	First 11 months of 1907.
	£ s. d.	£ s. d.	£ s. d.
Attendance to Silt Tanks	6 10 0	14 5 3	18 2 1
Distribution and digging into land	16 15 0	37 14 9	44 1 5
Total working cost	23 5 0	52 0 0	62 3 6
Interest on Capital Outlay, viz., Silt Main	57 10 0	57 10 0	57 10 0
Rent of Land	9 0 0	20 0 0	13 5 10
Total cost, including Interest on Capital	£89 15 0	£129 10 0	£132 19 4
Total amount of wet sludge dealt with (90% water)	6,226 tons.	21,605 tons.	36,299 tons.

The cost of disposal in this case was therefore **1·32**d. per ton of wet sludge containing 90 per cent.* of water.

BOLTON.

247. In the case of Bolton the total cost of the plan for the year ending November 30th, 1907, when 25,000 tons of sludge containing 90 per cent. of water were dealt with on 25 acres, was approximately 5·04d. per ton.

* The above figure of 90 per cent. water in the sludge was in this case actually determined.

It should be noted, however, that the sludge gravitates to the land from the precipitation works at Hacken—a distance of some miles—through a conduit which is used chiefly for the conveyance of tank liquor to the land for filtration. No portion of the interest and sinking fund charges on this conduit are included in the above cost for sludge disposal.

Burning of Sludge.

248. There have been many attempts to dispose of sewage sludge by burning it either alone or mixed with house refuse, coal, oil, or resin. Most of these have failed, owing either to the heavy cost of drying the sludge before burning, or to the fact that the attempt was made on wet sludge containing something like 90 per cent. of water. It is practicable, however, to burn pressed cake. At Ealing (Southern Works) Mr. Charles Jones has for some years disposed of pressed sludge (containing about 60 per cent. of water) in this way. At those works the pressed cake is dropped from the presses into trucks, which are then conveyed by a hydraulic lift to the destructor furnaces. There it is mixed with dry house refuse, in the proportion of about 1½ or 2 parts of dry refuse to 1 of pressed cake, and burnt. The steam generated is utilised for lime mixing, for sludge-pressing and the manufacture of artificial paving slabs, and for pumping a portion of the sewage. We have not been able to ascertain the cost of the process, but about 2,500 to 3,000 tons of pressed cake have been disposed of per annum in this way during the years 1905, 1906, and 1907.

249. Reference may also be made to the evidence given by Mr. K. F. Campbell of Huddersfield in regard to an *experimental* plant. At that place a portion of the sludge obtained by means of chemical precipitation is pressed and, having been tipped into feeding bins at the back of the furnaces, is there mixed with 20 per cent. of coke breeze and fed by hand into the furnaces. The burning plant consists of a two-cell Horsfall destructor, each cell having a grate area of 30 square feet, with a drying hearth at the back; the cells are placed side by side and each is fitted with a patent Silent Steam Blower. The furnaces are so arranged that all the fumes given off by the pressed cake, in drying, have to pass over the hottest part of the fire before they escape to the chimney. Campbell, 21,787-802.

Mr. Campbell's original intention was to burn the pressed sludge mixed with an equal quantity of town refuse, but owing to the difficulty in getting the refuse to the sewage works, this was abandoned and coke breeze was substituted. Occasionally a little engine slack has been used, mixed with the coke breeze, but this is not a regular occurrence. During the year 1907 a trial has been made with gas-works clinker containing a fair proportion of coke and combustible matter. The following particulars relating to the years 1901–6, inclusive, have been kindly given to us by Mr. Campbell:—

Year ending:—	Sludge Cake burnt in destructors.		Coke Breeze used.		Coal used.		Gasworks clinker used.	
	TONS.	CWT.	TONS.	CWT.	TONS.	CWT.	TONS	CWT.
March, 1901	5,421	14	911	1	121	0	101	16
,, 1902	34	8	7	10	—		—	
,, 1903	136	0	27	9	—		—	
,, 1904	220	14	42	11	—		—	
,, 1905	61	3	7	8	2	17	—	
,, 1906	74	9	12	9	—		—	
Total	5,948	8	1,008	8	123	17	101	16

The proportion of fuel added to the pressed cake was thus about 1 to 5.

The clinker obtained from the burnt sludge is rather too friable for use in sewage filters, but Mr. Campbell states that when it is ground up and mixed with cement or lime it forms an excellent mortar, of which much has been used in the present re-construction of the works.

Cost.

The cost of pressing and burning varies with the price of the materials (lime, coke breeze, etc.). The following are the average costs for each :—

PRESSING.

Cost per ton of Pressed Cake Produced.

	s.	d.
Labour	1	5·3
Lime (13s. 3d. per ton)	–	9·3
Press Cloths	–	3·7
Total	2s.	6·3d.

BURNING.

Cost per ton of Sludge Cake Burnt.

	s.	d.
Coke Breeze (7s. 6d. per ton)	1	6·4
Stokers	–	7·2
Mixers	–	5·3
Total	2s.	6·9d.
Total cost of pressing and burning (per ton)	5s.	1·2d.

These figures do not include cost of power for pressing, on the one hand, but, on the other, no allowance has been made for fuel value or for clinker produced.

It will be seen that the above process, as carried out on a large experimental scale at Huddersfield, is costly, but probably the whole of the final product can be utilised and the sludge is entirely got rid of.

Extraction of Valuable Substances from Sewage Sludge.

250. The chief example of the extraction of a valuable substance from sewage sludge is afforded by Bradford. As is well known, the sewage there contains a considerable quantity of wool-scouring liquor and is consequently of a very greasy nature. For some years experiments having for their object the extraction of the grease have been in progress, and Mr. J. Garfield, the City Engineer, has now been so far successful that the return from the sale of the products more than meets the working expenses of the tank treatment of the sewage,* leaving out of account the charges in respect of principal and interest on loans. The dry weather flow of sewage is approximately 13,000,000 gallons per day, about half being trade waste. Of the trade waste 20 per cent. is wool scouring liquor, and of this about 90 per cent. is treated by manufacturers for the recovery of grease before being discharged from the premises. The remaining 80 per cent. of trade waste comes from dyers, printers, chemical manufacturers, tar distillers, cloth manufacturers, waste pullers and scourers, yarn finishers, cloth washers, carbonizers, silk manufacturers, tanners, oil distillers, paper manufacturers, size manufacturers, brewers and galvanizers. In all, about 274 traders discharge their waste liquor into the sewers.

The process of treating the sewage at the works is as follows : The sewage is passed through detritus tanks, from which about 10 cubic yards of detritus are removed per day. It is then screened and sulphuric acid is added in such quantity that there is an excess equal to 10 parts of acid (H_2SO_4) per 100 000. The acid sewage is subsequently

* The treatment of the sewage at Bradford does not go beyond precipitation.

passed through settling tanks, used in series, the tank liquor being discharged into the Bradford Beck in a slightly acid condition. The following figures give the average chemical composition of the sewage and the tank liquor :—

	Parts per 100,000.	
	Crude sewage.	Tank liquor.
Suspended matter	84·0	16·0
Solids in solution	181·0	224·0
"Oxygen absorbed" in 4 hours	17·90	11·18
Free ammonia	3·00	1·87
Albuminoid ammonia	2·45	1·80

The sludge is removed from the settling tank into cast iron vats, where a further quantity of sulphuric acid is added and the temperature of the sludge is raised by means of exhaust steam from the boilers to about 100°C. It is then run into steel rams and forced by means of compressed air into the filter presses. The filter presses are heated by steam, and the process of pressing is continued from 12 to 24 hours, hot sludge and steam being alternately admitted to the press. The pressed liquor, which consists of water and fat, is run into special vessels for the separation of the fat, after which the fat is boiled with acid and black oxide of manganese, in order to bring it into a marketable condition.

The amount of wet sludge produced in a year is about 100,000 tons. It contains about 80·15 per cent. of water and 7·43 per cent. of grease, which is equivalent to 37·7 per cent. of grease on the dry solid matter.

The amount of pressed cake produced during the year is about 20,000 tons. This contains about 27 per cent. of water. Part of the pressed cake is used for fuel and is burnt in specially constructed brick furnaces; the fuel value is about 1s. 6d. per ton. Part is sold to farmers at 3s. 6d. per ton on rail at the works. Another portion is disintegrated and sold as manure at 5s. 6d. per ton, whilst 6s. 3d. per ton is obtained for the driest portion of the disintegrated pressed cake.

For the six months ending September 30th, 1907, the total expenditure on the sewage works, exclusive of principal and interest on loans, amounted to £9,960 0s. 3d. and the receipts from the sale of grease, etc., to £11,726 15s.

The following table, which has been given to us by Mr. Garfield, shows the figures in detail. The expenditure includes the salaries of the chemical and clerical staff, and the whole of the costs in connection with the Sewage Disposal Works, except the Chief Engineer's salary, and interest and sinking fund on loans.

Expenditure.	£	s.	d.	Receipts.	£	s.	d.
To Sulphuric Acid, Fuel and Stores	7,250	3	4	By Grease, Manure, etc.	11,726	15	–
To Salaries and Wages	1,907	12	–½				
To Gas	161	11	3				
To Water	90	19	10				
To Insurance and Sundries	122	13	9½				
To Rent, Rates and Taxes	427	–	–				
To Balance	1,766	14	9				
£.	11,726	15	–	£.	11,726	15	–

251. We may also refer to a process of sludge distillation (Watson and Butterfield's Patent Sludge Distilling Process), which was brought to our notice by Mr. George Watson of

the Horsfall Destructor Co., Ltd. The object of this process, an experimental installation of which was inspected by one of our officers on July 6th, 1907, is to recover the nitrogen from the sludge in the form of ammonia, and to utilise at the same time the carbonaceous matter for the purpose of generating heat. The following description of the process has been supplied by Mr. George Watson. It must, of course, be understood that we are not responsible for the claims advanced by Mr. Watson, in regard to the process. We can express no opinion in regard to them.'

"The treatment of the sludge as taken from the precipitation tanks involves, on this principle, three "separate processes. Firstly, the removal of a portion of the water by mechanical means; secondly, "the removal of a further portion of the water by drying; and thirdly, the destructive distillation of the "partially dried sludge."

(1) *Pressing.*

"The sludge when taken from the precipitation tanks contains about 90 per cent. of water. The "best method at present in use for getting rid of some of this water is filter-pressing. By this means the "proportion of water in the sludge may be reduced to 50 or 60 per cent.'

"Sludge containing 90 per cent. of water, when pressed until it contains 60 per cent., is reduced to "one-fourth of its original bulk; if pressed until it contains 50 per cent. of water, it is reduced to one-"fifth of its original bulk. The cost of filter-pressing is in one instance as low as 1s. 10d. per ton of "pressed cake, but the average cost at the present time may be put at from 2s. 3d. to 2s. 6d. per ton "of pressed cake containing from 50 to 60 per cent. of water."

(2) *Drying.*

"After the sludge has been filter-pressed, it is necessary to dry it until it contains only 20 to 25 per "cent. of water, before putting it into the retort for distillation. Wherever a sufficiently large space "of ground is available and only a comparatively small quantity of sludge has to be treated, the drying "may be most economically effected by exposing sheds. Where considerations of capital are not deterrent "or where space is limited, the sludge may be dried by passing it through mechanically driven rotary "cylindrical driers, heated by the hot waste gases of combustion, which leave the flues round the distilling "retort after having heated the retort.

"The sludge as it leaves the filter-presses can be readily transported to the driers on band-conveyors. "Filter-pressed sludge containing, say, 60 per cent. of water, when dried until it contains 20 per cent. "of water, is reduced approximately to half its weight and bulk.

"The sludge is now in the form of sufficiently dried cakes to be easily transportable mechanically "by conveyors or elevators to the retort, and suitable for the treatment by destructive distillation at a "high temperature.

"The gases from the interior of the cylindrical drier, before reaching the chimney, may be passed "through a scrubber which recovers any ammonia given off by the sludge during drying operations, "thus effectually preventing any smell which may arise from this source.

"The cost of drying is estimated at 1s. 6d. per ton of dried sludge (containing 20 per cent. of water), "which is equivalent to a cost of 9d. per ton of filter-pressed sludge containing 60 per cent. of water."

(3) *Destructive Distillation.*

"The retort used for the distillation may be of firebrick, but is preferably made of cast iron, and is "oval in section, so as to enable the heat to penetrate readily through the material in the interior.

"The retort is set vertically and is slightly larger in section at the bottom than at the top, so as to "facilitate the downward movement of the sludge cake. The top of the retort is closed air tight by a "cup and cone arrangement, through which the dried sludge cake is fed at regular intervals. The bottom "of the retort is similarly closed by a cone, which can be operated so as to let out the spent residue from "the distillation, as may be desired. The retort is placed in a brickwork setting and is heated by the "combustion of gas in a combustion chamber and in flues passing around and up its sides, preferably "in a spiral path.

"The volatile products arising from the distillation are taken off towards the top of the retort through "a pipe connected to the side, and the gases are pulled forward and outward by an exhauster which "maintains a pressure inside the retort slightly below the atmospheric pressure.

"After leaving the retort the volatile products of distillation are passed through a condenser and "subsequently through a scrubber, which extracts the moisture, oil, tar and ammonia. The inflammable "gas which now remains is passed into the combustion chamber of the retort and there burnt.

" The heat obtained from the combustion of this gas is sufficient to maintain the retort at the desired " temperature, but an auxiliary source of heat is provided by a gas producer or furnace which is used i " starting the operation.

" The lower part of the retort is maintained at a temperature of 1,500° to 1,800° F.

" Steam is blown into the retort, near the bottom, and in passing through the hot zone in the retort " it reacts on the carbonaceous material of the sludge, and in the presence of the lime, and at the high tem- " perature there existing, the nitrogen in the sludge is liberated and evolved as ammonia.

" The products obtained from the distillation are: (1) Oil; (2) ammonia; (3) combustible gas; " and (4) mineral residue."

(1) *Oil.*

" The oil is run off from the top of the ammoniacal liquor coming from the condenser, by means of an " oil separating tank. The oil thus obtained has not yet been thoroughly examined, but it probably has " a value far higher than that of fuel oil, although this is not necessary for the economical success of the " process.

" The yield of oil depends on the method of distillation, being much greater if a comparatively cool " zone is maintained at the top of the retort. The yield of oil from the sewage of different localities also " varies greatly."

(2) *Ammonia.*

" The ammoniacal liquor from the condenser and scrubbers is treated with sulphuric acid in the ordinary " way and is converted into ammonium sulphate.

" The yield of ammonia varies to some extent with the locality from which the sewage is derived. The " economical disposal of sewage sludge in this way depends on the recovery of the ammonia from the " sludge in sufficient quantity to cover the cost of treatment."

(3) *Gas.*

" The gas is burnt around the retort and provides the heat necessary for the distillation."

(4) *Residue.*

" The spent residue from the retort is freed entirely from any trace of organic matter by its treat- " ment in the retort, and is of a light friable nature and easily reduced to a fine powder. It contains " lime and some phosphates and is in a form very suitable for direct application to land, either alone " or enriched by the addition of concentrated manures. On the other hand it might possibly be used " as a precipitant for the sewage, along with a small proportion of fresh lime. By constantly using the " same material over again, the percentage of phosphate of lime in the material would be so increased " as to make it valuable as a manure. Where too much iron is not present, the residue can be used as " a cement of fair quality.

" The quantity of residue remaining after distillation is about 50 per cent. of the solid material present " in the sludge, or 40 per cent. of the sludge (containing 20 per cent. of water) as charged into the retort. " The percentage of residue varies in different localities according to the amount of surface water run " into the sewers. In some cases a large amount of mineral matter is thus swept into the sewage, which " increases the proportion of inorganic solids in the sludge."

The following figures show the amounts of the different products obtained by this process of distillation. In every case, to avoid confusion, the figures given are calculated per ton of *absolutely dry sludge*—that is, per ton of solid matter in the sludge.

Date.	Locality from which the sludge was obtained.	Oil.	Ammonium Sulphate.	Residue.
October, 1906 -	Bradford - - -	Not measured.	97·7 lbs.	42% (small sample only tested).
„ „ -	Bury - - -	30 gallons.	120 lbs.	47% do.
„ „ -	„ - - -	37 „	124 lbs.	47% do.
„ „ -	Southall - - -	6·2 „	81·7 lbs.	47% do.
April, 1907 - -	Leeds - - -	24 „	103 lbs.	50% do.
October, 1907 -	„ - - -	*Not measured.	109·2 lbs.	50% (one ton distilled in large retort).

* The retort was too hot at the top to yield oil.

Comparison of Cost of Different Methods of Disposal of Sludge.

252. The cost of disposing of sludge depends not merely upon the method adopted, but also, and to a large extent, upon the local circumstances of each place. This must be carefully borne in mind in considering the following table :—

Comparative Cost of the Various Methods of Sludge Disposal, as instanced by the Examples Given.

Method of sludge disposal.	Number of examples.	Maximum and minimum cost of the process, in pence, per ton of sludge containing 90 per cent of water, including interest and sinking fund and all other charges.*	Average cost of process, in pence, per ton of sludge containing 90 per cent of water, including interest and sinking fund and all other charges.
Covering land with sludge - - -	3	Minimum 1·32d. Maximum 2·8d.	say, 2d.
Sea disposal - - - - - -	6	Minimum 4·1d. Maximum 6·9d.	say, 5d.
Trenching in soil - - - - -	3	Minimum 4·0d. Maximum 7·0d.	say, 5d.
Pressing. Group I. - - - -	10	Minimum 4·8d. Maximum 7·3d *	say, 6d.
Pressing. Group II. - - - -	11	Minimum 7·7d. Maximum 12·6d.*	say, 11·5d.
Pressing and burning - - - -	1 (experimental)	13·3d. (excluding interest and sinking fund.)	say, 18d.†

The cheapest examples of disposing of sludge come under the heading of " covering land with sludge." This is, of course, what would be expected, for little labour is necessary in connection with the plan. The success of the method depends upon having a sufficient area of good, or fairly good, soil in flat formation. On account of smell, the plan would, as a rule, only be suitable where the sewage works were far removed from houses and public roads.

The two cases of an actual profit arising out of the disposal of the sludge, viz., Kingston-on-Thames and Bradford (Yorkshire) are not included in the table.

In the table no credit has been given either for the manurial value of the sludge disposed of by covering land or trenching, or for the fuel value of the sludge and the production of clinker in the " burning " method.

With regard to the burning of sludge, if this process were so modified as to permit of the recovery of the nitrogen of the sludge, its cost would probably be much reduced.

* Owing to the great variations in the actual figures for interest and sinking fund, mainly because of the different dates at which the sewage works were constructed, we have been obliged, in dealing with " Pressing," to take an approximate average figure for this item, viz. 9d. per ton of pressed cake containing 55 per cent. of water, or 2d. per ton of sludge containing 90 per cent. of water.

† This figure is an estimate.

MANURIAL VALUE OF SEWAGE SLUDGE.

253. Opinions in regard to the manurial value of sludge were of so conflicting a character that we thought it advisable to institute some accurate experiments with various sewage sludges.

Through the kindness of the Board of Agriculture and Fisheries, these experiments were carried out at several collegiate centres under their supervision.

The experiments took the form of three series as follows :—

Series 1.—Experiments with mangolds and swedes at five collegiate centres, under the supervision of Dr. W. Somerville.

Series 2.—Experiments with grass at eight collegiate centres under the direction of Professor Middleton, and at Woburn by Dr. J. A. Voelcker.

Series 3.—Pot-culture experiments at Woburn by Dr. J. A. Voelcker.

The reports on these experiments are given in Appendix VIII.

In all three series of experiments the same sewage sludges were used, and in each case the sludge was artificially dried before being sent to the experimental stations. Its carriage would otherwise have presented much difficulty.

The sludges were derived as follows :—

SLUDGE No. 1.—*Composite precipitation sludge produced by the Native Guano Co., Ltd., at Kingston-on-Thames :—*

This sludge consists of the precipitate deposited in continuous flow tanks, as the result of adding alumino-ferric, blood, charcoal and clay (together about 50 grains per gallon) to the Kingston sewage, which is mainly domestic in character, but which contains a small proportion of waste liquors from breweries and a gas works.

Having been pressed into cake and then artificially dried at a temperature of about 75° Centigrade, it was stored under cover for some time previous to sampling.

SLUDGE No. 2.—*Composite precipitation sludge from Dorking, Surrey :—*

This sludge consists of the precipitate deposited in continuous flow tanks as the result of adding lime (10 grains per gallon) and alumino-ferric (5 grains per gallon) to the Dorking sewage, which is almost entirely domestic in character.

It was first pressed into cake and then dried by placing portions of it in thin layers near a boiler. A further quantity of lime, equivalent to about 120 lbs. per ton of pressed cake, was added previous to the pressing.

SLUDGE No. 3.—*Alumino-ferric precipitation sludge from Chorley, Lancashire :—*

This sludge consists of the precipitate deposited in quiescent settling tanks as the result of the addition of alumino-ferric (9 grains per gallon) to the Chorley sewage, which is domestic in character.

Having been pressed and partially dried under cover, it was further dried by placing it in small quantities on either side of a boiler. Previous to the pressing a quantity of lime, equivalent to 1 cwt. per ton of pressed cake, was added to the sludge.

SLUDGE No. 4.—*Composite precipitation sludge from Leeds, prepared by Alton's process :—*

This sludge consists of the precipitate deposited in a continuous flow tank as the result of adding calcium phosphate (4 to 5 grains per gallon) in acid solution and subsequently lime (about 1 grain per gallon) to the Leeds sewage, which is rather dilute and contains a considerable proportion of waste liquors from various manufactories.

The wet sludge was first drained in a lagoon and afterwards dried artificially by placing it near a boiler.

Sludge No. 5.—*Septic tank sludge from Leeds :—*

This sludge consists of the deposit in an open septic tank which had been receiving Leeds sewage for a period of three years. The flow of sewage into the tank during this time was sufficient to fill it once every twenty-four hours. The wet sludge was first drained in a lagoon and afterwards dried artificially by placing it near a boiler.

Sludge No. 6.—*Settled sewage sludge from Leeds :—*

This sludge consists of the deposit settling in the second of a series of continuous flow subsidence tanks used at Leeds for the treatment of the main flow of sewage. The wet sludge was first drained in a lagoon and afterwards dried artificially by placing it near a boiler.

Sludge No. 7.—*Composite precipitation sludge from Glasgow (Dalmarnock), known as "Globe Fertilizer" :—*

This sludge consists of the precipitate deposited in continuous flow tanks as the result of the addition of persulphate of iron (8 grains per gallon) and lime (4 to 5 grains per gallon) to the Glasgow (Dalmarnock) sewage, which contains much manufacturing waste.

The sludge was first pressed and then artificially dried at a temperature of 65° to 75° Centigrade, and finally passed through a pan mill.

The chemical compositions of the sludges used in the experiments are given in the Reports, but we may say here that No. 1 sludge contained the most nitrogen and phosphoric acid, and Nos. 2 and 4 the most lime.

Series 1.

Dr. Somerville's Experiments with Turnips, Mangolds, and Swedes.

254. Table I. gives the names of the five experimental stations where this series of experiments was carried out, together with the nature of the soil and the crop grown.

Table I.

Place.	Nature of Soil.	Crop Grown.
Rothamsted Experimental Station (Mr. G. D. Hall) -	Strong flinty loam overlying chalk.	Mangolds.
Agricultural Department, Cambridge University (Prof. Middleton).	Moderate gritty loam overlying gault.	Mangolds.
Agricultural Department, Leeds University (Prof. Seton).	Strong drift soil overlying the coal measures.	Swedes.
South-Eastern Agricultural College, Wye (Prof. Dunstan).	Strong flinty loam overlying chalk.	Swedes.
Glasgow and West of Scotland College of Agriculture (Prof. Wright).	Strong loam on the carboniferous formation.	Turnips.

The scheme of the experiments was as follows :—

At each station twenty-two plots in duplicate, each $\frac{1}{20}$ of an acre, were selected.

It was decided to use, as far as possible, 40 lbs. of nitrogen and 36 lbs. of phosphoric acid per acre, and 2,072 lbs. of sludge No. 1 were required to supply these amounts. Since the other sludges contained less nitrogen and phosphoric acid than No. 1, 2,072 lbs. did not in their case supply as much as 40 lbs. nitrogen and 36 lbs. phosphoric acid. It was obviously impossible to apply equal quantities of the manurial constituents from all the sludges, while it was also inadvisable to attempt to get over this by the addition of artificial manures. On the first seven duplicate plots an amount equal to 2,072 lbs. per acre of each of the sludges was therefore used. Plots 8*a* and 8*b* received an amount equal to half the above quantity per acre of No. 1 sludge (*i.e.*, 1,036 lbs. per acre), Plots 9*a* and 9*b* received no sludge, and Plots 10*a* and 10*b* received 3,108 lbs. per acre of No. 1 sludge. The other twelve duplicate plots were used for comparative experiments with No. 1 sludge mixed with either sulphate of ammonia, superphosphate, or both, and also for experiments with sulphate of ammonia, superphosphate and fish meal, either together or alone.

The whole of the experimental area received an equal dressing of potash salt, supplying 30 lbs. of potash (K_2O) per acre :—

"The season was somewhat abnormal in character and, on the whole, not very favourable to the action "of manures. From the Midlands northwards the early part of the summer was characterised by great "deficiency of rain, with the result that seed germinated badly and young plants received a check in growth. "At Leeds the root crop on the experimental area was a total failure, so that no figures are available from "this centre.

"At the other centres the yields were fair, being above the average at Cambridge and below the average "at Glasgow."

255. From the results obtained with given weights of nitrogen and phosphoric acid added in the form of artificial manures, Dr. Somerville determines the sensitiveness of the soil to manurial treatment, showing :—

(1) That nitrogen alone (sulphate of ammonia), unsupported by phosphates, produced no positive result at any of the centres, so far as turnips and swedes are concerned. On the other hand, with mangolds at Rothamsted and Cambridge a large increase was obtained.

(2) That the use of 20 lbs. of nitrogen (sulphate of ammonia) per acre, together with phosphoric acid in the form of superphosphate, produced a marked increase of crop in every case.

(3) That 18 lbs. per acre of phosphoric aid (as superphosphate) alone produced no increase of crop, while, with the exception of Wye, 36 lbs. of phosphoric acid per acre produced an increase at all the centres.

Comparing the results obtained with sludge No. 1 alone and mixed with either superphosphate or sulphate of ammonia, he shows :—

(1) That the phosphate of the sludge is less active than the phosphate in the superphosphate, because the addition of a further quantity of phosphoric acid in the form of superphosphate produced a greater relative effect in the former case than the latter.

(2) That there are similar indications with regard to the nitrogen of the sludge.

From the direct comparison of the effects of equal weights of nitrogen (20 lbs. and 40 lbs. respectively) and phosphoric acid (18 lbs. and 36 lbs.) derived from sludge No. 1 and from sulphate of ammonia with super-phosphate and with fish meal, Dr. Somerville shows that the sludge-grown crop is in nearly every case considerably inferior in weight to the crop grown with artificial manure. In several cases the sludge-grown crop was smaller than the crop grown on the unmanured plot (No. 9).

In comparing the results obtained with all seven sludges, he says :—

"Taking the average of all the centres and the average of the seven plots that got 2,072 lb. per acre of "sludge, we find that the yield works out at 19 tons 7 cwt. per acre, which is practically a ½ ton less than "the average yield on the unmanured plot (No. 9). Or, looked at from another point of view, it will be "seen that the highest yield of any of the sludges is that of No. 2 (Dorking) on Plot 6, where it amounts "to 20 tons 5¾ cwt., a figure that is lower than the average yield on any of the plots receiving artificial "manure."

Dr. Somerville's general conclusion is as follows :—

"So far as these experiments go, they show that in the season of 1905 none of the sludges experi- "mented with produced any consistent manurial effect on the growth of turnips, swedes, or mangolds. Al- "though the season was not a good one for the growth of the root crops, it permitted artificial manures to "exert a considerable influence upon the yield of this crop. We would, therefore, appear to be justified in "drawing the conclusion that the nitrogen and phosphoric acid of sludge are in a much less available form "than the same substances in sulphate of ammonia, superphosphate, and fish meal."

In view of the difficulty of the whole subject, it was thought desirable to continue the experiments for another year, this time with hay as the crop to be grown.

Series 2.

(a) *Experiments with Sewage Sludge upon Hay, under the Supervision of Mr. T. H. Middleton.*

256. The general scheme of this series of experiments was similar to that of Series 1, except that eight centres were chosen and the crop grown was hay.

At most of the centres twenty-five plots of $\frac{1}{40}$ of an acre each (not in duplicate) were used, but at Cambridge there were thirty-four plots.

The first seven plots received equal weights of the seven sludges; Plots 8, 9, and 11 different weights of Sludge No. 1; Plots 10 and 23 were unmanured; Plots 12, 13 and 14 received No. 1 Sludge with various artificial manures; Plots 15 to 22 combinations of artificial manures alone, while Plots 24 and 25 received lime alone. The artificial manures employed in this instance were basic slag and sulphate of ammonia.

The sludges were the same as in Series 1, but made a year later: as will be seen from the chemical analyses, their composition varies slightly. Sludge No. 1 again contained the most nitrogen and phosphoric aid, and Nos. 2 and 4 the most lime.

Table II. gives the names of the centres at which the experiments were carried out with the nature of the soil and the condition of the meadow land.

TABLE II.

Centre.	Nature of Soil.	Condition of Meadow Land.
(1) The North of Scotland College of Agriculture, Aberdeen.	Poor, wet clay.	Field had been in grass for six or seven years, but was in extremely poor condition.
(2) The West of Scotland College of Agriculture, Glasgow.	Heavy clay.	Grass in its first year.
(3) The Armstrong College, Newcastle-on-Tyne.	Clay loam.	Field had been in grass for about thirty years.
(4) The University, Leeds.	Medium loam.	Old meadow land.
(5) The University College of North Wales, Bangor.	Gravelly soil.	Old meadow land.
(6) The Agricultural Department, Cambridge University.	Medium, but sticky loam.	Pasture of fifteen to twenty years' standing.
(7) The Rothamsted Experimental Station, Harpenden, Herts.	Heavy clay loam.	Old meadow land.
(8) The South-Eastern Agricultural College, Wye, Kent.	Somewhat stiff loam overlying chalk.	Pasture of some years' standing.

257. Mr. Middleton's report should be referred to, but we may say that the broad results show that at the northern stations, where the wet summer was favourable to slow-acting manures, the application of sludge seems to have been useful.

In the South of England, where the hay is cut much earlier, the sludges produced no results whatever.

Speaking generally, the two sludges containing the most lime, viz., Nos. 2 and 4, gave the best results among the sludge grown crops.

In a general survey of these experiments and the experiments of Series 1, Mr. Middleton says:—

"The figures obtained in this experiment and in the corresponding experiments made last year are not "of a satisfactory character, and do not permit of any conclusions as to the relative money values of sludge "and artificial manures.

"The only definite conclusion which may be stated is that, for root crops and grass, the action of the "nitrogenous and phosphatic constituents of sludge is very slow, as compared with the effect produced by "nitrogen and phosphates supplied in ordinary artificial manures.

"For such crops as mangolds, potatoes and swedes, which have a short period of growth and require "quick acting manures, sewage sludges would not appear to be well adapted, and if they are employed they "should be applied in tons rather than in hundredweights per acre.

"On the other hand, although these experiments do not supply the evidence, it seems likely that sludge "used in proper quantities would form a good dressing for the slow growing plants of many permanent pastures "and meadows.

"Sludge is unlikely to give satisfaction on the very poor clay-soil pastures which are so much benefited "by basic slag, but for old grass land of moderate quality it should prove useful."

It is instructive to note the indication that sludges produced by precipitation with lime are probably more valuable as manures than sludges derived from precipitation with salts of alumina or iron. As is well known, phosphate of lime is much more readily assimilated by plants than phosphate of iron or alumina.

This series of experiments upon hay is being continued at some of the stations for another year without any fresh application of sludge.

(b) *Experiments with Sewage Sludge on Grass Land at Woburn, by Dr. J. A. Voelcker.*

258. These experiments were on much the same lines as those carried out under Mr. Middleton.

Eleven plots of $\frac{1}{40}$ of an acre were marked out in a field that had been long in grass, but which could only be described as of moderate quality. The field is on the junction of the Lower Greensand with the Oxford Clay, the soil partaking of the character of both formations.

The first seven plots were respectively dressed with each of the seven sludges in quantity sufficient to supply 40 lb. of nitrogen per acre, Plots 8, 10 and 11 received ordinary mixtures of artificial manures, and Plot 9 was left unmanured. Plots 8, 10 and 11 also received a dressing of lime. Exactly the same sludges were used as in Series 2 (*a*).

"All the sludges, with the exception of Nos. 2 and 4 (which were rather 'sticky' in nature, and would "in practice be rather difficult to sow), were in fair condition and could be easily manipulated. Very little "rain fell during the months of February and March, the recorded rainfall at Woburn being only 0·99 inch "for February and 0·83 inch for March. In April, however, there was much more, and on April 12th 0·44 "inch of rain fell, this being the first real washing which the manurial applications received. This fact "and the absence of warmth by which the season was marked no doubt militated much against the sludges "increasing any decided benefit, and it is, indeed, very probable that the results now recorded cannot fairly "be taken as a guide to the real or relative values of the sludges. In all experiments conducted on grass land "it is unfair, and often misleading, to take the results of a single year as conclusive, and especially is this the "case when an abnormal season like that of 1907 enters into the calculation."

When the hay was cut on July 15th it was found that there was little difference in weight of crop from any of the first six plots, the produce ranging from about 2 tons per acre (Plot 1) to about 2 tons 4 cwt. per acre (Plot 4). Plot 7, receiving Sludge No. 7; Plot 8, receiving superphosphate, 3 cwt. per acre and lime 5 cwt.; and Plot 9, which received no manure, gave from about 2 tons 5 cwt. (Plot 8) to about 2 tons 7 cwt. (Plot 7) of hay.

Plot 10 (superphosphate 3 cwt., lime 5 cwt., sulphate of ammonia $\frac{3}{4}$ cwt.) gave about 2 tons 8 cwt., and Plot 11 (sulphate of ammonia $1\frac{1}{2}$ cwt.), 3 tons 3 cwt.

259. Summarising these results Dr. Voelcker says:—

"There is, I think, little more to be said than that, for all practical purposes, the sludges did not 'tell' "during this season, but that they require longer time to show their influence, and that the only clear benefit "was to be traced to the more quickly acting (because more soluble) material, sulphate of ammonia. That "even this increase will, in the end, be a beneficial one, is by no means certain, for the mere 'flushing' of a "grass field to give an extra cut for hay by no means results necessarily in the improvement of the pasture "permanently. Here, again, continuation of the experiment for other years is called for."

Series 3.

Pot Culture Experiments at Woburn by Dr. J. A. Voelcker (1907).

260. In addition to the foregoing experiments with grass, Dr. Voelcker also carried out a detailed series of experiments with wheat at the Woburn Pot Culture Station, experiments which involved much care and trouble.

The same seven sludges were used.

The experiments were divided into three groups:—

(1) A comparison of the manurial effect, on the wheat crop, of one kind of sewage sludge as against another, when these were respectively applied in quantities calculated to supply 40 lbs. of nitrogen per acre.

(2) A comparison of the effect of each individual sludge with that of an artificial dressing composed of superphosphate, rape dust and lime, calculated to supply the same amounts of phosphoric acid, nitrogen and lime as did the corresponding sludge.

(3) A comparison of the cost of increase of crop obtained by the addition of sludge and by artificial manures of known cost. In this experiment the sludges were used in equal weights (2 tons per acre) and compared with dressings of artificial manures such as a farmer would be likely to use.

Every experiment was carried out in triplicate, the plan being to grow the wheat in pots of certain size filled with soil of known composition. In filling the pot the last fifth of the soil was thoroughly incorporated with the sludge or artificial manure used in the experiment. The pots held 40 and 32 lbs. of soil. Control experiments for each size of pot were also made at the same time.

When the pots were all filled, on December 5th, 1906, they were each sown with twelve seeds of wheat, the young plants being thinned out to six in each pot on April 11th, 1907. As regards the plants removed at the time Dr. Voelcker says :—

"... a comparison of the rootlets of the plants then removed showed very little difference between "one sludge and another, but in each case the artificial equivalents had given the larger and stronger root "growth."

"About April 22nd the first change in appearance showed itself, the sludge grown plants being then "slightly in advance of the untreated ('control') ones, and the flag presenting a darker colour. The plants "of Sludge 1 and 4 were the best of the series. On April 25th the top dressing of sulphate of ammonia was "applied in experiment 3.

"By May 24th further differences were noticeable; the 'equivalents' were in most cases rather stronger "than the corresponding sludges. Of the sludges, No. 2 alone seemed no better than the untreated lot, the "others generally showing improvement. Growth was rapid from now, and in each case the 'equivalents' "went to the front, and by June 20th Sludge No. 2, which up to then had been behind the others, now shot "ahead and was the best of the sludges. Sludges 4 and 6 had very irregular plants. As the ripening pro- "ceeded, the most noticeable point was that the straw was distinctly shorter in the case of the 'equivalents' "than with the sludges themselves; this held good in every case. The untreated lots ripened off first, then "the sludges, and lastly the equivalents. Photographs and measurements of the plants were taken just before "harvesting, this latter being done on August 28th, the corn being subsequently threshed out and weighed."

261. Having set out the results in tabular form and examined the results in detail, Dr. Voelcker draws the following conclusions :—

"(1) That the different sewage sludges, when used in sufficient quantity to supply 40 lbs. "of nitrogen per acre, are capable of increasing the yield of both corn and straw by 10 to 12 per "cent. above the unmanured produce.

"(2) That 'artificial equivalents' of the different sewage sludges applied as above will give "rather better results, the increase in corn and straw being 16 to 17 per cent. over the unmanured "produce."

"(3) That the tendency of the use of sewage sludges is to produce a greater length of straw."

"(4) That as between different sludges, those have done the best which contain the most "moisture and the most lime."

"(5) That the value of the sludge does not turn mainly upon the amount of nitrogenous organic "matters contained, but that these may, indeed, be in a form incapable of ready assimilation and "requiring lime for their decomposition."

"(6) That from a practical point of view none of the sewage sludges used would be worth 10s. "a ton on the farm for wheat-growing purposes."

262. Acting on the suggestions of Mr. Middleton and Dr. Voelcker, we have decided to continue these experiments for another year. The indications are that the manurial constituents of sewage sludge act much more slowly than those of ordinary artificial manures, and for this reason the second year results may be of considerable importance.

Unit for unit the nitrogen and the phosphoric acid of sludge seem to be of less value, manurially, than the nitrogen and phosphoric acid of artificial manures; at any rate so far as the first year of application is concerned. It also appears that sewage sludge is not a suitable dressing for quickly growing plants, unless it is applied in very large quantities per acre.

The important practical consideration, however, is not whether the manurial constituents of artificial manures are, unit for unit, more valuable than the manurial constituents of sewage sludge, but whether a given increase of crop can be produced more cheaply with sewage sludge than with artificial manures. Sewage sludge has undoubtedly a manurial value, but the manurial constituents being of necessity mixed with such a large proportion of grit, etc., the question of its economic use as a manure depends, to a large extent, upon the cost of carriage.

In the case of sewage sludge, likely to contain anthrax spores, it would of course be unwise to apply it to land. It would, however, be only in rare cases that such spores would be apt to be present.

SLUDGING OF MILL DAMS.

263. Our attention has been drawn to the evils attending the practice of the sludging of mill dams on rivers, and, although the matter is not directly within our terms of reference, we thought it desirable to take some evidence in regard to it, as it was alleged that the practice frequently gave rise to serious nuisance.

Many of the rivers in this country, particularly in Cheshire, Lancashire, and Yorkshire, are largely used by manufacturers for power and other purposes, and to facilitate the use of the water for such purposes, dams or reservoirs are constructed either in the bed of the stream itself, or near thereto.

In course of time, the mill dams become silted up with solid matters which are brought down in suspension by the stream, and which, owing to the velocity of the stream being reduced, settle in the mill dam. It is necessary to empty these solid matters out of the mill dams from time to time, and the evidence shows that when the accumulations are sent down the river in bulk serious pollution may take place and a nuisance may be caused. The liability to nuisance is of course greater in the case of rivers which, in their course above the mill dams, receive polluting matters such as sewage and manufacturing effluents, but it was represented to us that nuisance also occurs, though in a lesser degree, on rivers which are not so polluted.

Somerville, 20230–4, 20254–5. Tatton, 20264. Halliwell, 20477–86. Wilson, 23915, 23935–6. Tatton, 20265–73. Wilson, 23934.

The witnesses whom we examined specially in regard to these matters were :—

Mr. Herbert Hughes, C.M.G., Clerk of the Millowners' Association of the River Don.

Mr. J. Selwyn Rawson, Millowner.

Mr. A. F. Somerville, Chairman of the Sanitary Committee of the Somerset County Council.

Mr. R. A. Tatton, Chief Inspector of the Mersey and Irwell Joint Committee.

Mr. E. Halliwell, Chief Inspector of the Ribble Joint Committee.

Mr. H. Maclean Wilson, Chief Inspector of the West Riding of Yorkshire Rivers Board.

From the evidence of these witnesses, we find that there are three principal methods of removing the accumulations of solid matters, or sludge as it is termed, from dams, namely, (*a*) by opening the sluices and allowing the accumulated water to flush out the sludge ; (*b*) by turning the water of the stream through the dam and employing men to push and carry the sludge into the current of water, by which it is washed out of the dam into the stream ; and (*c*) by running the water out and wheeling the sludge to a tip outside the dam.

264. The main provisions of the general law affecting this matter are contained in the Rivers Pollution Prevention Act, 1876. There are, besides, two special Acts, namely, the Mersey and Irwell Joint Committee Act, 1892, in force in the area under the jurisdiction of the Mersey and Irwell Joint Committee*; and the West Riding of Yorkshire Rivers Act, 1894, in force in the area under the jurisdiction of the West Riding of Yorkshire Rivers Board.

By Section 2 of the Rivers Pollution Prevention Act, 1876, it is provided that "every person who puts or causes to be put or to fall, or knowingly permits to be put or to fall into any stream, so as . . . . to interfere with its due flow, or to pollute its waters, the solid refuse of any manufactory, manufacturing process or quarry, or any rubbish or cinders, or any other waste or any putrid solid matter, shall be deemed to have committed an offence against this Act." By Section 17 the Act is not to apply to or affect the lawful exercise of any rights of impounding or diverting water ; and by Section 20, the term "solid matter" if not inconsistent with the context, does not include particles of matter in suspension in water.

The effect of these provisions upon the sludging out of mill dams has been the subject of a judgment in the Court of Appeal in the case of Ribble River Joint Committee *v.* Halliwell. The respondent owned a mill on the river Darwen, and he had from time to time been accustomed to divert the water, which was polluted with

vegetable substances, into a reservoir. The water was impounded in the reservoir, cleared, run off, and then used for condensing purposes. A large deposit was left at the bottom of the reservoir, and from time to time sluice gates were lifted and the deposit was discharged into the river. The matter so discharged was putrid, and it no doubt polluted the river.

The Court of Appeal held that the lawful exercise of the right to impound and divert water, which was protected by Section 17 of the Act of 1876, necessarily implied a right to return the water after it had been used for the purposes for which such right of impounding and diverting was so exercised ; and that if, by the impounding, solid matter which was brought down in suspension by the stream was allowed to settle and become putrid, the return of the water, together with such putrid matter, was not an offence under Section 2 of the Act.

265. In the Mersey and Irwell Joint Committee Act, 1892, the prohibition against the putting of solid matters into a stream is extended to "sludge" ; but it is provided that no person shall be deemed to have committed an offence against the Act for constructing in or across any "river or stream any . . . dam . . . which but for the passing of the Act he would have a legal right to construct," or "for putting into any such river or stream any sand or gravel or other natural deposit which shall have flowed from or been deposited by the current of any such river or stream."

So far as we are aware, the effect of the Mersey and Irwell Joint Committee Act has not been determined by the High Court ; but it was stated by Mr. Tatton, then Chief Inspector of the Joint Committee, that proceedings had been taken under the Act in seven cases against millowners on polluted streams for sludging out mill dams, and that convictions were obtained in all these cases.

Tatton, 20305.

266. The West Riding of Yorkshire Rivers Act, 1894, follows closely the Mersey and Irwell Act, but is, if anything, somewhat stronger. For in addition to "sludge," the West Riding of Yorkshire Act expressly mentions "any rubbish or any deposit in a reservoir, mill dam, water lodge, or pond," as amongst the solid matters which may not be put into a river ; and, while it contains the proviso that no person shall be deemed to have committed an offence for putting into a river or stream any sand or gravel or other natural deposit which shall have flowed from or been deposited by the current of the river or stream, it further provides that the sand or gravel or other natural deposit so put back into the stream shall not interfere with the due flow of or pollute the waters of such river or stream.

The West Riding Act has been before the High Court in the case of West Riding of Yorkshire Rivers Board *v.* Goldthorpe and another, which was an appeal by the Rivers Board from the decision of the Quarter Sessions dismissing a case in which a millowner was proceeded against for putting solid matter into a stream. From the report in *The Times* of June 9th, 1898, we gather that the process of the respondents was to collect in the mill dam the water that worked the mill by reason of which a deposit was created. Periodically this deposit was shovelled out into the stream and allowed to be washed down. Evidence was given that as much as 300 tons in one day was thus sent down, and a sample of dark coloured water was put in in evidence. The Court held that the section of the Act prohibiting the putting of solids into a stream did not apply to "cleaning out" a natural deposit of a mill dam. Day, J., stated "that was a natural deposit ordinarily associated with a mill pond when the water was torpid for a certain time. This was not an offence under the section, and, if it were, it would come within the exception."

We may also refer to another action under the West Riding of Yorkshire Rivers Act, viz., West Riding of Yorkshire Rivers Board *v.* Rawsons (1903). The respondents were the owners and occupiers of a mill situated on the bank of a river. Adjoining the mill was a large dam fed by a goit from the river and a tributary stream and having an outlet at the other end into a lower part of the river. The sewage from some 400 houses, besides the treated trade effluents of six mills, entered the river above the dam. Owing to the waters being impounded in the dam, a deposit of mud and sludge had formed in the basin of the dam. The respondents, in order to get rid of the mud-sludge and deposit, opened the sluice at the outlet of the dam and turned the whole of the waters of the river through the dam, while men with spades conveyed and scraped the mud, sludge and deposit into the current so made when it was carried in suspension through the outlet, making the river muddy and unfit for any purpose.

It was held that the respondents had committed no offence under the Act. In the course of his judgment, Wills, J., stated, "under the Act applicable to the present case the sludge is prohibited from being sent out, but, by reason of what has been done, the sludge before anything has been sent out has ceased to be sludge, or has been converted into a very mild decoction." This had reference to the fact that a sample of the water taken at the outlet during the sludge operations was analysed and found to consist of slightly over 99½ per cent. of liquids and less than half per cent. of solids in suspension.

267. It was clearly the intention of the two Rivers Boards, in promoting their special Acts, to obtain power to prevent millowners from turning into the river the solid matters which had been deposited in mill dams, and it was urged by some of the witnesses that the general law should be altered so as to prohibit the scouring out of the sludge into the river, save perhaps in exceptional cases, and that the manufacturer should be required to remove the sludge on to land. Mr. Maclean Wilson, representing the West Riding of Yorkshire Rivers Board, stated that, on the whole, this was the more common practice in the West Riding, and that therefore it must be regarded as a financially practicable method to adopt. Mr. Tatton, Chief Inspector of the Mersey and Irwell Joint Committee, and Mr. Halliwell, Chief Inspector of the Ribble Joint Committee, expressed a similar view.

Somerville, 20251. Tatton, 20286–7, 20318–9. Halliwell, 20503–5. Wilson, 23918–21, 23939–44, 23939–42. Tatton, 20331–2. Halliwell, 20505–6.

On the other hand, Mr. Hughes, representing the Millowners' Association of the River Don, contended that the cost of removing the sludge on to land would in some cases be absolutely prohibitive, and this view was supported by the evidence of Mr. Rawson, a millowner. It was further pointed out that in some cases the situation of the mill dam would render it impracticable to remove the sludge on to land.

20124. 20183–99. Rawson, 20184–6 Halliwell 20515–7.

268. We are satisfied that the discharge of sludge from mill dams into the river, at more or less lengthy intervals of time, in some cases gives rise to serious evils. While the river could itself deal with the suspended matters as they flow down from day to day, it cannot cope with the accumulation of such matters when these are discharged altogether over a short period.

At the same time it must be remembered that in numerous case millowners have had the unrestricted right for many years to empty the sludge from their dams into the river, and that any undue interference with this right might seriously affect industries.

Looking to all the circumstances, and having regard to the evidence given on behalf of millowners, we do not consider that the practice of sludging mill dams by turning the accumulations into the stream should be absolutely prohibited by law in every case without regard to the local circumstances. We are of opinion, however, that in most cases it would be financially practicable for the millowner to remove the sludge on to land or to adopt some other means of disposing of it, and in such cases the millowner should not be allowed to turn it into the stream if, by so doing, a nuisance would be caused.

Recommendation.

269. We recommend that in any case in which the Rivers Board should be of opinion that the sludging of a mill dam by turning the accumulated sludge into the stream would give rise to nuisance, and that it would be financially practicable for the mill owner to adopt some other method of cleansing the dam, the Rivers Boards should be empowered, by notice, to direct the millowner not to turn the sludge into the stream.

It should be provided that any millowner deeming himself aggrieved by such a direction, might, within some fixed period, appeal to the Central Authority. The decision of the Central Authority should be final.

Should any cases arise in which it is important that the sludge should not be turned into the stream, but in which the Rivers Board are of opinion that the cost of adopting any other method of cleansing the dam would be prohibitive to the millowner, we recommend that the Rivers Board should be empowered to represent the case to the Central Authority, and that the Central Authority should be empowered, after due inquiry, to direct that the sludge shall not be turned into the stream. If the Central Authority should be satisfied that the cost of adopting some other method of cleansing the dam would be greater than the millowner could be reasonably called upon to bear, they should be empowered to direct that a portion of the cost should be borne by the local authorities whose districts would be benefited.

PART V.—GENERAL.

EFFECT OF TRADE EFFLUENTS ON SEWAGE PURIFICATION.

270. All the trade effluents of which we have had experience interfere with or retard processes of purification to some extent, but we are not aware of any case where the admixture of trade refuse makes it impracticable to purify the sewage either upon land or by means of artificial processes, although in certain extreme cases special processes of preliminary treatment may be necessary.

In the following cases, which we have investigated more or less fully, some modifications have had to be adopted in consequence of the presence of trade refuse.

Burton-upon-Trent.—Brewery refuse.

Here the sewage consists mainly of brewery refuse, the sewage proper constituting only about one-fifth part of the whole. We are not aware whether artificial processes of treatment have been tried with the Burton sewage; but, for its treatment on land, the addition of a very large quantity of lime has been found necessary (40 to 50 grains per gallon), otherwise the decomposition of the sewage gives rise to the production of much sulphuretted hydrogen, causing great nuisance. With carefully regulated addition of lime, treatment on land appears to be successful in producing a good effluent.

Bradford.—Wool-scouring liquor.

The sewage of Bradford contains a large proportion of wool-scouring liquors, which have the effect of making it abnormally alkaline and very greasy. A special preliminary process of precipitation has therefore been found necessary, viz., the "cracking" of the sewage with sulphuric acid. The fats which are thus set free are extracted from the precipitated sludge by pressing hot, and by distillation of this pressed sludge under reduced pressure. The precipitation liquor after the addition of sulphuric acid can be successfully treated on percolating filters at rates of from 50 to 100 gallons per cube yard per day, notwithstanding that it is often distinctly acid as it goes on to the filter. It may be added that the effluent from the filters is usually neutral or slightly alkaline.

Rochdale.—Wool-scouring liquor, waste liquor from fellmongers, rubber-recovery waste.

At Rochdale, as at Bradford, the sewage is often rendered very alkaline and greasy by the discharge of wool-scouring liquor. At such times sulphuric acid in addition to alumino-ferric is used as a precipitant; otherwise the tank liquor obtained is unsatisfactory and badly settled. The sewage after precipitation is successfully treated, either upon filters, or upon land.

It is interesting to note that the strong alkaline sewage at Rochdale can be successfully treated, without any neutralisation, by septic tanks, followed by Whittaker percolating filters.

Wolverhampton.—Waste liquors from galvanising works.

Owing to the discharge of the "used-out" liquors and wash water which contain a large quantity of ferrous iron in acid solution) from the vats at the galvanising works in the town, the Wolverhampton sewage is often mixed with such a large quantity of this liquor that it is then necessary to increase the quantity of lime which

is used as a precipitant in order to obtain good settlement in the tanks. If sufficient lime is added, the iron in the sewage helps the precipitation. The tank liquor is successfully treated over land, and it has also been shown, by experiment, to be easily amenable to treatment on bacteria beds.

There are many similar cases; but those cited are, perhaps, sufficient to show that trade effluents may render necessary modifications in the ordinary processes of purification.

271. These cases may, we think, be regarded as more or less exceptional. Usually we find that the amount of trade effluent is not sufficiently large to make any material modification of the *process* necessary, though of course the increase in volume of the sewage to be treated may necessitate an enlargement of the filtering area. The following are cases of this kind:—

Birmingham.—Various manufacturing liquors.

The Birmingham sewage, notwithstanding the considerable proportion of various manufacturing waste liquors which it contains, can be successfully treated upon land or upon artificial filters, after ordinary preliminary settlement and septic tank treatment.

Manchester.—Various manufacturing wastes, including many tar products.

Here part of the sewage is being successfully treated on a large scale by means of septic tanks and contact beds.

Leeds.—Wool fibre, dye waste, tannery and iron liquors.

The fibrous nature of the suspended matter in the Leeds sewage and the amount of finely divided and colloidal iron compounds which it contains seem to be the main causes which render the settlement—either by septic tank treatment or sedimentation, or even by precipitation—more difficult, and the danger of filter clogging much more serious, than would be the case if these waste products were absent. The trade effluents in general also seem to have the effect of inhibiting, to some extent, the action of the nitrifying organisms in the biological oxidation processes at Leeds, for it has been noticed that filters take an exceptionally long time to mature there.

The experiments at Leeds, however, have shown that it is possible to produce good effluents by various processes, and that—with careful selection of the materials—clogging can be prevented long enough to make it practicable to treat the sewage by artificial filtration.

Maidstone.—Brewery and tannery waste.

The Maidstone sewage is frequently mixed with large quantities of the waste liquors from breweries and tanneries. At such times the liquid resulting from the tank treatment after precipitation with lime is organically stronger and less well settled than at other times. The trade effluents at Maidstone also appear to have the effect of increasing the nuisance from the tanks, for it has been noticed that when these liquors are present the smell is much greater. Experiments, worked partly under our observation for this special purpose, have shown that the sewage can be purified to the extent of 88 per cent., calculated on the "oxygen absorbed" in four hours, by double contact filtration, without preliminary treatment in tanks for the settlement of the solids, although only a small quantity (23·7 gallons) can be filtered per cube yard per day.

Yeovil.—Waste liquors from tanneries.

At Yeovil, closed septic tanks and double contact beds appear to be successful in treating a sewage which is often mixed with a large proportion of tannery liquor.

Here the effect may be to require a more frequent cleansing of the tanks and possibly of the filter beds. We have not watched the plant continuously.

York.—Tannery waste and waste-waters from a confectionery works.

After septic tank treatment the York sewage can be successfully treated upon percolating filters at a rate of something like 150 gallons per cube yard per day.

There are a number of such cases, and, indeed, the great majority of sewages from towns with populations from 5,000 upwards are mixed with small proportions of manufacturing wastes. Generally, therefore, we are satisfied that the character and proportion of the trade effluent or effluents in the sewage are not such as seriously to affect any process of purification, though in some cases where it is present in large proportion, or is of a specially refractory character, special means have to be taken to counteract its influence.

At many of the places which we have visited (for example, Birmingham, Bradford, Burton, Burnley, Huddersfield, Leeds, Manchester) the difficulties arising from the admixture of trade effluent with the sewage have been largely overcome as the result of experiments, which have been conducted under the supervision of skilled scientific advisers resident upon the works.

272. Our further experience strengthens the view which we expressed in our Third Report, that, as a general rule, trade effluents should be allowed to enter the sewers, but that the local authority should be given power to require that their admission should be subject to regulation.

NUISANCE FROM SMELL AT SEWAGE WORKS.

273. All sewage works are liable, at times, to give off unpleasant smells, and they should, therefore, be situated away from dwelling houses, wherever this is practicable.

The nuisance is apt to be considerably greater where the sewage contains brewery refuse in any quantity; but, on the other hand, the presence of some trade effluents, such, *e.g.*, as iron salts or tarry matters, tends to render the process of purification less offensive.

The extent of the risk of nuisance depends, however, not only on the character of the sewage, but also on the method of treatment adopted.

Tank Treatment.

274. Septic tank treatment is likely to be more offensive than chemical precipitation or simple sedimentation. During sludging operations all tanks are usually offensive; but septic tanks—unlike other tanks—may give off sulphuretted hydrogen, and probably small quantities of offensive organic sulphides, at other times.

By covering over septic tanks and the feed channels to the filters, the risk of nuisance from the tanks themselves during the period of working is greatly lessened, but the liquor issuing from septic tanks contains a larger amount of sulphuretted hydrogen than other tank liquors, and its subsequent filtration may, therefore, give rise to more nuisance.

Filters.

275. The exposure of a foul smelling liquid to the air is necessarily accompanied by risk of nuisance, and if such a liquid, in the process of distribution, is divided up into small drops or jets, it is obvious that the smell will be greatly intensified.

For these reasons percolating filters are more likely to give rise to nuisance than contact beds, if the liquid to be treated contains offensive gases.

In some cases, septic tank liquor can be treated upon percolating filters without much risk of nuisance, but where the liquor is derived from a strong domestic sewage or a domestic sewage containing brewery or tannery waste, and especially if it is sprinkled or sprayed upon percolating filters, serious smell may occur in the neighbourhood of the works.

At the following places where septic tank liquor is sprinkled upon percolating filters, there is usually a considerable smell in the proximity of the filters :—

Accrington	Strong domestic sewage.
Dorking	Domestic sewage of about average strength.
Guildford	Very strong domestic sewage containing brewery waste.
Dorchester	Domestic sewage containing brewery waste.

On the other hand the same process does not give rise to any serious complaint at :—

Birmingham	Strong sewage containing much manufacturing waste, which includes salts of iron.
Huddersfield	Rather weak sewage containing much manufacturing waste, including salts of iron.
Leeds	Rather weak sewage containing much manufacturing waste, including salts of iron.
Hanley	Weak sewage containing a small proportion of manufacturing waste.

Where fresh crude sewage or fresh precipitation liquor is treated upon percolating filters, there is much less danger of nuisance. This is exemplified at the following places :—

Crude Sewage :

Hendon	Domestic sewage of average strength.
Leeds	Rather weak sewage containing much manufacturing waste.

Settled Sewage :

Huddersfield - -	Rather weak sewage containing much manufacturing waste.
Leeds - - -	Rather weak sewage containing much manufacturing waste.
Market Drayton -	Very strong slopwater sewage.

Precipitation Liquor :

Kingston - - -	Domestic sewage containing a small proportion of trade waste.
Dorking - - -	Domestic sewage of about average strength.
Chorley - - -	Domestic sewage of about average strength.
Royton - - -	Domestic sewage.
Normanton - -	Very strong slopwater domestic sewage.
Withnell - - -	Strong domestic sewage, mainly slopwater.

At Horfield, however (strong domestic sewage, partly derived from latrines), where precipitation liquor was distributed by dripping trays upon percolating filters, there was occasionally a very strong local smell upon the works.

276. Our experience leads us to the following general conclusions upon this question:—

That where weak sewage, purely domestic or mixed with manufacturing refuse, is treated either fresh or after chemical precipitation, or even after passing through septic tanks, there is not likely to be any serious smell. If such a sewage contains a small proportion of brewery or tannery waste, however, and is given preliminary treatment in septic tanks, nuisance may possibly arise if the septic liquor is sprinkled or sprayed upon percolating filters.

That where a strong domestic sewage is treated, either fresh or after settlement or chemical precipitation, by sprinkling upon percolating filters, and especially if it is a slopwater sewage, there will not be much danger of nuisance.* On the other hand, if such a sewage is passed through septic tanks, there will be danger of serious nuisance, while if it contains brewery or tannery waste there will be danger of nuisance with any form of preliminary treatment, excepting possibly chemical precipitation.

That with a weak sewage, containing a mixture of trade wastes (especially if iron salts are present), there will be little danger of nuisance, whatever the form of preliminary treatment or final filtration.

That with a strong sewage containing a mixture of trade wastes, there will not be much danger of nuisance, if it is treated by sprinkling upon percolating filters in the fresh state or after simple subsidence or chemical precipitation ; but, if it is first passed through septic tanks, there may in some cases be serious danger of nuisance. This was well exemplified in the case of the experimental septic tank at Sheffield, even though the sewage there contained considerable quantities of iron salts.

The risk of nuisance with percolating filters depends to a large extent on the method of distribution adopted, unless the filter is covered in.

277. The following table shows a number of places arranged in the order of "strength" of sewage, side by side with our observations as to nuisance arising from the distribution of the liquid over the filters :—

* This might not hold good in the case of highly ammoniacal sewages.

Place.	Nature of Sewage.	*Calculated strength of sewage.	Nature of preliminary treatment.	Distributor.	Remarks as to smell arising from the distribution.
Places where smell is apparent.					
Rochdale	Strong domestic sewage, mixed with large quantities of wool-scouring liquor.	203	Septic tank.	Sprinkler.	Considerable smell in neighbourhood of filter.
Caterham	Very strong domestic sewage, derived mostly from latrines.	195	Septic and "cultivation" tank.	Perforated pipes.	Strong smell in filter house.
Guildford	Very strong domestic sewage, mixed with brewery waste.	194	Septic tank.	Sprinklers.	Strong smell in neighbourhood of filter.
Accrington	Rather strong domestic sewage.	121	Septic tanks.	Sprinklers.	Strong smell near filters as a general rule.
Dorking	Domestic sewage of about average strength.	96	Septic tanks.	Sprinkler.	Strong smell near filters.
Horfield	Domestic sewage, derived partly from latrines.	88	Precipitation tanks.	Dripping trays.	Occasionally very strong smell near filters.
Knowle	Domestic sewage.	78	Septic tanks.	Dripping trays.	Occasionally some smell near filters.
Places where little smell is apparent.					
Clifton	Very strong slopwater sewage.	247	Settling tanks.	Fine material on surface.	Very little smell from filters.
Normanton	Very strong slopwater sewage.	235	Precipitation tanks.	Fine material on surface.	Very little smell from filters.
Little Drayton	Very strong slopwater sewage, containing laundry waste.	205	Settling tanks.	Tipping troughs.	Very little smell from filters.
Birmingham	Strong trade sewage, containing salts of iron.	—	Septic tanks.	Nozzles.	Very little smell from filters.
Leeds	Trade sewage, strong as regards suspended matter, but otherwise rather weak.	123	Septic, settling and precipitation tanks.	Sprinklers.	Very little smell from filters.
York	Rather weak domestic sewage, but containing tannery waste, etc.	115	Septic tanks.	Sprinklers.	Very little smell from filters.
Hendon	Domestic sewage of about average strength.	110	No preliminary treatment.	Tipping troughs.	Very little smell from filters.
Chorley	Domestic sewage of about average strength.	106	Precipitation tanks.	Flushing over fine material on surface.	Practically no smell from distribution.
Dorking	Domestic sewage of about average strength.	96	Precipitation and settling tanks.	Sprinklers.	Very little smell from filters.
Kingston	Domestic sewage of about average strength.	94	Precipitation tanks.	Sprinkler.	Practically no smell from distribution.
Salford	Trade sewage of about average strength.	—	Precipitation tanks.	Nozzles.	Very little smell from distribution.
Hanley	Weak domestic sewage, containing a small proportion of trade waste.	61	Septic tanks.	Sprinklers.	Very little smell from filters.
Prestolee	Very weak slopwater sewage.	28	Septic tanks.	Fine material on surface.	Very little smell from filters.

(* See p. 15 of this report and the memorandum of Dr. McGowan in Appendix IV.)

278. In the whole of our experience with contact beds, we have only observed one case in which any appreciable nuisance arose after the liquor to be treated was in the bed.

In that case the nuisance was, we think, due to overworking, for the smell practically disappeared when the beds were given a short rest.

On the other hand, there is almost always local smell from the channels or feed troughs delivering to a contact bed, when the liquid to be treated possesses a strong smell, and also, in some cases, when the primary bed is being discharged.

At Hampton, during the last year of the treatment of crude sewage upon contact beds, the filling of both primary and secondary beds was attended with local smell. In the case of the primary beds, we think that there would have been serious nuisance if there had been houses in close proximity to the works. In this case, the smell chiefly arose from the settling " bays " constructed on the surfaces of the beds.

At Guildford, Hartley Wintney, Andover, Exeter (Main Works), Ilford, Leeds, Bradford, and Sheffield, we have, on a number of occasions, been aware of considerable local smell arising from feed channels during the filling of contact beds. If steps are taken to obviate this, there is no doubt that contact beds are less liable to give rise to nuisance than any other form of filters.

In connection with the smell which arises from feed channels and distribution pipes, it is of interest to observe that at Ilford and Andover the authorities have recently adopted the plan of covering the channels and laying a few inches of material over the distribution pipes. We understand that this has had the effect of reducing the smell to a very large extent.

An important point which is sometimes lost sight of is that, although the surfaces of contact beds are rich in insect life, it is unusual to see many flies on the beds, whereas percolating filters of coarse or medium material generally swarm with them.

Treatment on Land.

279. Where the soil is fairly porous and the land is not overworked, land treatment of sewage is not, as a rule, offensive.

In certain states of the atmosphere, however, we find that the smell from sewage farms is offensive, and it is therefore important that sewage farms, also, should be kept as far away from dwelling houses as practicable.

Deodorization of Septic Tank Liquors.

280. The use of septic tanks followed by percolating filters, may, in some cases, be the most economical way of treating the sewage, but in view of the greater risk of nuisance from such a combination, it might not be advisable to adopt it in many cases.

The question whether the offensive character of septic tank liquors might be destroyed, arose in the case of Stone, in Staffordshire, where a sewage containing brewery refuse had to be dealt with. In that case it was proposed to overcome the difficulty by the addition to the septic tank liquor of an active chlorine solution, *i.e.*, a solution of alkaline hypochlorite, produced by an electrical process by a company named " Oxychlorides, Limited."

The addition of this chlorine solution clearly lessened the offensive smell of the septic tank liquor, but the question was raised whether it might not also interfere with the subsequent oxidation of the sewage by filtration.

For the purpose of testing this by experiment, two identical percolating filters were provided at the Guildford sewage works, and these were kept under observation for several months by Mr. Carter, Assistant Chemist to the Commission. On to one of these filters was run septic tank liquor alone; on to the other, the same tank liquor, in the same amount, but mixed with varying quantities of the hypochlorite solution.

The results of these experiments showed :—

1. That "35* per cent. to 50 per cent. treatment" with the hypochlorite solution is sufficient to do away with the offensive sulphuretted hydrogen smell of the Guildford septic tank liquor, leaving in its place a comparatively inoffensive odour of spent bleach and fresh sewage.

2. That the addition of this quantity of "oxychloride" in no way interferes with the efficiency of the filter. Indeed, it rather adds to it, by helping to keep down an excess of grey growths on the top of the filter.

3. That a very much larger quantity of oxychloride *may* be added, without any danger to the filter. In other words, there is a large margin of safety, so far as regards the accidental addition of too much oxychloride. Somewhere between "200 per cent. and 500 per cent. treatment" appears to be the limit of the quantity of oxychloride which can be added with safety.

A number of bacteriological examinations were also made in connection with the experiments, and we ascertained that a dose of oxychloride *more* than sufficient to remove a sulphuretted hydrogen smell and kill *B. coli* in the liquid to be treated may be used without prejudice to the purifying ability of a *mature* percolating filter.

A summary of the experiments is given in the accompanying table, and a detailed Report upon them in Appendix IV.

* As to the meaning of this term *see* Mr. Carter's Report, Appendix IV.

GUILDFORD.—TREATMENT OF SEPTIC TANK LIQUOR WITH "OXYCHLORIDE."

Date and Duration of Experiment.	% Treatment	Effect of Treatment as regards Smell of Tank Liquor.	Effect of Treatment as regards Purification by the Filter.	Nitric Nitrogen. Parts per 100,000. Effluent from Untreated Tank Liquor. †	Nitric Nitrogen. Parts per 100,000. Effluent from Treated Tank Liquor. †
				Average.	Average.
Nov. 22nd to Dec. 5th, 1906 (14 days).	25 %	Tank liquor rendered much less offensive, owing to the destruction of about four-fifths of the total sulphuretted hydrogen present.	Quality of the effluent unaffected. The effluent had a slight spent bleach liquor odour.	1·41—2·41=2·07 (8)	1·33—2·74=2·15 (8)
Dec. 6th to 10th, 1906 (5 days).	35 %	This increase of dose was too small to make any marked difference from the 25 % treatment. The tank liquor still possessed a slight septic odour, the sulphuretted hydrogen not being entirely eliminated.	Quality of the effluent unaffected.	1·95—1·98=1·97 (3)	1·95—2·00=1·97 (3)
Dec. 11th to 21st, 1906, and Dec. 31st, 1906, to Jan. 13th, 1907 (25 days).	50 %	This dose completely destroyed all the sulphuretted hydrogen present. The tank liquor possessed a slight fresh sewage smell with an accompanying spent bleach liquor odour, and was not offensive.	Quality of the effluent unaffected.	1·25—2·78=2·13 (15)	1·29—3·63=2·23 (15)
* Feb. 15th to May 13th, 1907 (87 days).	100 %	With this dose there was an excess of oxychloride in the tank liquor going on to the filter. The sewage smell was masked by the spent bleach liquor odour. The average excess of oxychloride was equal to 1·00 parts of available chlorine per 100,000.	Taking the figures for analysis over the whole time, there was very little difference between the quality of the two effluents. This experiment was started in very cold weather, and at first the effluent from the filter taking the treated liquor was inferior in quality to the effluent from the filter taking the untreated liquor. As the weather became warmer, both effluents improved.	0·60—5·82=2·38 (66)	0·21—5·81=2·59 (66)
May 14th to 30th, 1907 (17 days).	200 %	The tank liquor was bleached considerably by this dose.	Quality of the effluent unaffected.	4·10—6·21=4·84 (13)	4·10—6·46=4·92 (13)
May 31st to June 10th, 1907 (11 days).	500 %	This dose bleached the tank liquor to a pale yellowish colour. The average excess of oxychloride amounted to about 12–16 parts of available chlorine per 100,000.	The quality of the effluent was appreciably affected by this dose, both as regards appearance and the amount of Nitric Nitrogen.	4·62—5·98=5·26 (10)	2·90—5·05=4·00 (10)
June 11th to July 12th, 1907 (32 days).	1,000 %	The tank liquor was completely bleached by this dose and possessed a strong spent bleach liquor odour, owing to the large excess of oxychloride (about 30 parts of available chlorine per 100,000).	The quality of the effluent was immediately affected by this dose, the Nitric Nitrogen being reduced by about 50 per cent. In a fortnight it had disappeared entirely and the effluent was very thick and turbid in appearance, and on testing gave a reaction for available chlorine.	4·22—5·85=4·91 (14)	0·00—2·70=1·17 (14)

* From March 5th, 1907, the conclusions have been based on data supplied by Mr. Fieldhouse, Manager at Guildford for Oxychlorides, Ltd.
† Figures in brackets represent the number of samples analysed.

The Oxychloride Company has furnished the following figures as representing the working cost of deodorising 1,000,000 gallons of septic tank liquor by the addition of 6 gallons, 8·4 gallons, and 12 gallons of strong oxychloride, respectively, per 100,000 gallons of liquor :—

Amount of Oxychloride added.	Working cost per million gallons.	
	s.	d.
6 gallons per 100,000 gallons	9	3
8·4 „ „ „	12	2
12 „ „ „	18	6

The capital cost of the plant would be the same in each case. For the Guildford sewage, this was calculated to be £1,220.

281. Of course, there are other ways of providing chlorine, if it should be found that this is the best body to use for the purpose of destroying the offensive character of septic tank liquor.

Our own experiments have shown that the offensive character of Dorking septic tank liquor can be destroyed by the addition to it of 3 grains of lime per gallon. We have also found that the liquor, so treated, could, after a short settlement, be filtered at a considerably increased rate.

Generally, we may say that the risk of nuisance at a sewage works may be considerably lessened by careful selection of the method of treatment and careful attention to details; and that by the adoption of special precautions, methods of treatment, which ordinarily are accompanied by somewhat serious smell, may be rendered almost inoffensive.

SOME OBSERVATIONS ON THE CHOICE OF A METHOD OF SEWAGE TREATMENT.

General.

282. The selection of a method of sewage disposal, and the settlement of details in connection with any method which it is proposed to adopt, should depend primarily on local conditions, and we only propose to indicate in a general way what, in our opinion, should be the guiding considerations.

In a later part of this Report,* we have expressed the view that the degree of purification which should be required in any particular case should depend on local circumstances, and the question which a local authority would have to determine would be in what way the sewage could be most economically purified to the extent necessary. If a sufficient quantity of good land, to which the sewage can flow by gravitation, can be purchased for about £100 an acre, land treatment would, we think, usually be the cheapest method to adopt. Or, if the case were one in which it was necessary to obtain a high class effluent, it might be cheaper to pay a somewhat higher price for good land, rather than to adopt artificial treatment, because effluents obtained from the treatment of sewage on artificial filters, as usually carried out in practice, are generally distinctly inferior to those obtained by the treatment of sewage on good land, and some addition to the ordinary artificial plant would therefore be required. On good land, a sewage of average strength, from which the major portion of the suspended solids have been eliminated by tank treatment, can be treated at about the rate of 30,000 gallons per acre per day, with the production of a high class effluent. If the land available were of only medium quality, capable, say, of treating only half this quantity, its use might still be economical, if it could be acquired at about £50 an acre.

In cases where only clay land was available, we think that it would generally be cheaper and more satisfactory to provide artificial filters.

In considering the question whether land or artificial treatment should be adopted, the situation and levels of the land available are, of course, important factors. And whatever system is adopted, it is essential that the works should be so situated as to be capable of extension.

Selection of an Artificial Process.

283. As regards the selection of an artificial process, the following are the broad generalisations at which we have arrived :—

Tank Treatment.

It has been shown in another section of our Report that, given conditions favourable to each process, there is little difference as regards cost between any of the different forms of tank treatment when the cost of the subsequent filtration is taken into account. For this reason, the selection of the preliminary process should depend mainly upon local circumstances and upon the facilities offered for the disposal of sludge.

If the circumstances were such that considerable quantities of sludge could be easily and effectively disposed of, say, as wet sludge by sending to sea or by trenching in soil, or as pressed cake by sale or gift to farmers, it would probably be best and cheapest to adopt a preliminary process which removed as much of the suspended matter as possible from the sewage. If, on the other hand, it were imperative to have as little sludge and as few sludging operations as possible, then septic tanks or continuous flow settling tanks might be cheaper. The size of the place and the question of smell † are also factors of primary importance in the selection of the preliminary process.

* *See* section of this Report on Standards, p. 217.
† *See* preceding section, "Nuisance from Smell."

CLASS I.

Strong or Very Strong Sewage.

Typical Analysis of Sewage from a slop-water town, having few water-closets, where the water supply is about 10 to 15 gallons a head, and where the sewers are on the partially separate system.

Ammoniacal nitrogen.	Oxygen absorbed in 4 hours.	Suspended solids.
7·5	20	40

Strength 175 to 200.

Ammoniacal nitrogen - -	6·0
Oxygen absorbed in 4 hours -	25·0
Suspended solids - - -	40·0

Strength 200 to 230.

Quiescent settlement for 2 hours.

Settled Sewage.

Ammoniacal nitrogen - -	7·0 to 7·5
Oxygen absorbed in 4 hours	10·0
Suspended solids - - -	10·0

Strength 100 to 105.

Effluents.

	Triple contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (deep).	Good land (Filtration with little cropping).
of filtration per cube d per day.	40 galls. (4 fillings) ...	75 galls. ...	35 galls. ...	20,000 galls. per acre per day (4 galls. per sq. yd.).
oniacal nitrogen - -	1·0 ...	1·0 ...	0·5 ...	0·25
nitrogen - - -	2·0 to 2·5 ...	3·0 ...	4·0 ...	1·5
n absorbed in 4 hours -	1·5 ...	3·0 ...	2·5 ...	0·3 to 0·5
nded solids - - -	Trace ...	6·0 to 8·0 and more. ...	5·0 ...	Possible traces of growth, washed out from drains.

Fine material in tertiary beds. Rate of filtration could not be doubled in wet weather.

Continuous flow settlement for 15 hours.

Settled Sewage.

Ammoniacal nitrogen - -	7·0 to 7·5
Oxygen absorbed in 4 hours	12·0
Suspended solids - - -	15 to 20

Strength 120.

Effluents.

	Triple contact beds.	Percolating filters of coarse material (deep).	Percolating filter of fine material (deep).	Good land (Filtration with little cropping).
Rate of filtration per cube yard per day	30 galls. (3 fillings). ...	50 galls. ...	25 galls. ...	20,000 galls. per acre per day (four galls. per sq. yd.).
Ammoniacal nitrogen - -	0·5 ...	1·0 ...	0·75 ...	0·25
Nitric nitrogen - - -	2·5 to 3·0 ...	3·5 ...	4·0 ...	1·5
Oxygen absorbed in 4 hours -	1·5 ...	3·0 to 4·0 ...	2·5 to 3·0 ...	0·3 to 0·5
Suspended solids - - -	Trace. ...	6 to 10 and more. ...	5 to 7 ...	Possible traces of growth from drains.

Fine material in tertiary beds.

Beds would choke on surface every 2 years. We have had no experience of shallow filters of fine material, dealing with a strong liquor of this kind.

Septic tanks. 24 hours' continuous flow.

Septic Tank Liquor.

Ammoniacal nitrogen - -	8·0 to 8·5
Oxygen absorbed in 4 hours	13·0
Suspended solids - - -	15·0 to 20·0

Strength 130.

Effluents.

	Triple contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (deep).	Good land.
Rate of filtration per cube yard per day	30 galls. (3 fillings) ...	50 galls. ...	25 galls. ...	—
Ammoniacal nitrogen - -	0·5 ...	1·0 ...	0·75 ...	Considerable danger of nuisance from smell.
Nitric nitrogen - - -	2·5 to 3·0 ...	3·5 ...	4·0 ...	—
Oxygen absorbed in 4 hours -	1·5 ...	3·0 to 4·0 ...	2·5 to 3·0 ...	—
Suspended solids - - -	Trace ...	6 to 10 and more. ...	5 to 7 ...	—

Fine material in tertiary beds.

Beds would choke on surface every 2 years. We have had no experience of shallow filters of fine material, dealing with a strong liquor of this kind.

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required to oxidize 100,000 parts.
ormal solution of permanganate of potash

is below 5 feet in depth and usually about
an 2 feet 6 inches.

(5) At first sight it may seem curious that the same figures of analysis should be given for the land effluents of this Class. It has, however, to be remembered that the mechanical straining effect of land is such that all liquors derived from the same sewage must necessarily be brought more or less into line, and, further, that volume of sewage is a more important factor in land treatment than strength.

(6) The figures of analysis for effluents refer to the effluents including their suspended solids.

Typical Analysis of Sewage from a water-closet town with a water supply of 25 to 30 gallons a head. Separate system of sewers.

Ammoniacal nitrogen - -	9·0
Oxygen absorbed in 4 hours -	17·0
Suspended solids - - -	40·0

Strength 160 to 170.

Chemical precipitation and quiescent settlement for 2 hours.

Precipitation Liquor.

Ammoniacal nitrogen - -	7·0
Oxygen absorbed in 4 hours	8·0
Suspended solids - - -	2 to 5

Strength 90.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (shallow).	Good land (Filtration with little cropping).
Rate of filtration per cube yard.	65 galls. ($2\frac{1}{2}$ fillings)	150 galls.	100 galls.	25,000 to 30,000 galls. per acre per day. (5 to 6 galls. per sq. yd.).
Ammoniacal nitrogen - -	2·0	2·0	2·0 to 3·0	0·25
Nitric nitrogen - - -	1·5	2·0	3·0	1·5
Oxygen absorbed in 4 hours -	3·0	3·0	2·5	0·3 to 0·5
Suspended solids - - -	2·0	4·0 to 5·0	2·0 to 3·0	Possible traces of growth, washed out from drains.

Variable effluents, sometimes putrescible.

Chemical precipitation and 8 hours' continuous flow settlement.

Precipitation Liquor.

Ammoniacal nitrogen - -	7·0 to 7·5
Oxygen absorbed in 4 hours	9·0
Suspended solids - - -	8·0

Strength 95 to 100.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep.)	Percolating filters of medium material (shallow.)	Good land (Filtration with little cropping).
Rate of filtration per cube yard per day.	50 galls. (2 fillings)	100 galls.	75 galls.	25,000 galls. per acre (5 galls. per sq. yd.).
Ammoniacal nitrogen - -	2·0	2·5	2·5	0·25
Nitric nitrogen - - -	1·5	2·0	2·0 to 3·0	1·5
Oxygen absorbed in 4 hours -	3·0	3·0	2·5	0·3 to 0·5
Suspended solids - - -	2·0	6·0	5·0	Possible traces of growth, washed out from drains.

Variable effluents, sometimes putrescible.

NOTES.—(1) The numbers given for "strength" of Sewage represent *approximately* the parts by weight of oxyge
(2) "Oxygen absorbed in 4 hours" means oxygen absorbed in 4 hours at 27° C. (80° F.) from an eighth (3·94 grms. per litre), rendered acid with dilute sulphuric acid.
(3) All figures of analysis are stated in parts per 100,000.
(4) By a "deep" filter we mean one of 5 to 6 feet and upwards in depth; by a shallow filter one whi 3 feet. It would probably be inadvisable at the present time to build sewage filters of a less depth

This sewage would be derived from a water-closet town, where the sewers were on the partially separate or the combined system, where the water supply was about 30 gallons per head, and where a moderate quantity of subsoil water gained access to the sewers.

Sewage of about Average Strength.

	Ammoniacal nitrogen.	Oxygen absorbed in 4 hours.	Suspended solids.
	4·0	10 to 12	28 to 30

Strength 100.

Chemical precipitation and quiescent settlement for 2 hours.

Precipitation Liquor.

Ammoniacal nitrogen - -	3·5 to 4·0
Oxygen absorbed in 4 hours	4·5
Suspended solids - - -	1 to 4

Strength 50.

Chemical precipitation and 8 hours' continuous flow settlement.

Precipitation Liquor.

Ammoniacal nitrogen - -	3·7 to 4·0
Oxygen absorbed in 4 hours	5·5
Suspended solids - - -	3 to 6

Strength 60.

Quiescent settlement for 2 hours.

Settled Sewage.

Ammoniacal nitrogen - -	3·8
Oxygen absorbed in 4 hours	6·5
Suspended solids - - -	5·8

Strength 70.

Effluents.

	Single contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (shallow).	Good land (Filtration with little cropping).
Rate of filtration per cube yard per day.	150 galls. (3 fillings)	200 galls.	200 galls.	30,000 to 40,000 galls. per acre per day (6 to 8 galls. per sq. yd.).
Ammoniacal nitrogen - -	2·0	1·0	1·5	0·5
Nitric nitrogen - - -	0·5	2·0	2·5	0·5
Oxygen absorbed in 4 hours -	2·0	1·5	1·5	0·8
Suspended solids - - -	1·0	3·0 and more	2·0	Practically none.

Fine material. Variable effluents, sometimes putrescible.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (shallow).	Good land (Filtration with little cropping.)
Rate of filtration per cube yard peri day.	80 galls. (3 fillings)	150 galls.	100 to 150 galls.	30,000 to 40,000 galls. per acre per day (6 to 8 galls. per sq. yd.)
Ammoniacal nitrogen - -	1·0	0·75	0·5	0·5
Nitric nitrogen - - -	1·5	2·0	2·5 to 3·0	0·5
Oxygen absorbed in 4 hours -	1·5	1·5	1·0	0·8
Suspended solids - - -	2·0	3·0 and more.	2·0	Practically none.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material (shallow).	Good (Filtration cropp
Rate of filtration per cube yard per day.	80 galls. (3 fillings)	150 galls.	100 galls. per cube yd.	25,000 to 3 per acre p 6 galls. pe
Ammoniacal nitrogen - -	1·0	0·5	0·75	0·
Nitric nitrogen - - -	1·5	2·5	2·5	0·
Oxygen absorbed in 4 hours -	1.5	1·5	1·0	0
Suspended solids - - -	2·0	4·0 and more.	2·0	Practically

NOTES.—(1.) The numbers given for "strength" of sewage represent *approximately* the weights of oxygen required to oxidize 100,000 parts.
(2.) "Oxygen absorbed in 4 hours" means oxygen absorbed in 4 hours at 27° C (80° F) from an eighth-normal solution of permanganate of potash (3·94 grms. per litre), rendered acid with dilute sulphuric acid.
(3.) All figures of analysis are stated in parts per 100,000.
(4.) By a "deep" filter we mean one of 5 to 6 feet and upwards in depth; by a "shallow" filter, one which is below 5 feet and usually about 3 feet. It would probably be inadvisable at the present time to build any sewage filter of less depth than 2 feet 6 inches.
(5.) At first sight it may
remembered that
less into line, and
(6.) The figures of analy

Continuous flow settlement for 15 hours.

Settled Sewage.

Ammoniacal nitrogen - -	3·8
Oxygen absorbed in 4 hours	7·5
Suspended solids - -	10 to 15

Strength 80.

Septic tanks. 24 hours' continuous flow.

Septic Tank Liquor.

Ammoniacal nitrogen - -	4·5 to 5·0
Oxygen absorbed in 4 hours	7·5
Suspended solids - - -	10 to 15

Strength 80.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material.	Good land (Filtration with little cropping).
Rate of filtration per cube yard per day.	50 galls. (2 fillings)	100 galls.	Filters would clog unless rate of filtration were very slow, say 30 to 50 gallons per cube yd.	25,000 to 30,000 galls. per acre per day (5 to 6 galls. per sq. yd.)
Ammoniacal nitrogen - -	0·5	0·75		0·5
Nitric nitrogen - - -	2·0	2·5		0·5
Oxygen absorbed in 4 hours -	1·0	3·0		0·8
Suspended solids - - -	2·0	6·0 and more.		Practically none.

Effluents.

	Double contact beds.	Percolating filters of coarse material (deep).	Percolating filters of fine material.	Good land.
Rate of filtration per cube yard per day.	50 galls. (2 fillings)	100 galls.	Filters would clog unless rate of filtration were very slow, say 30 to 50 galls. per cube yd.	Danger of nuisance from smell.
Ammoniacal nitrogen - -	0·5	0·75		
Nitric nitrogen - - -	2·0	2·50		
Oxygen absorbed in 4 hours -	1·0	3·0		
Suspended solids - - -	2·0	6·0 and more.		

urious that the same figures of analysis should be given for the land effluents in this class. It has, however, to be
hanical straining effect of land is such that all liquors derived from the same sewage must necessarily be brought more or
, that volume of sewage is a more important factor in land treatment than strength.
fluents refer to the effluents including their suspended solids.

Filters.

Single contact beds will, generally, only yield a good effluent where the sewage to be purified is weak, and then only after good preliminary treatment. For the purification of partially settled weak sewage and for well as also for partially settled sewage of average strength, if the case is one in which a good effluent is required, double contact is necessary, while, if a strong sewage has to be purified, triple contact is necessary unless the preliminary treatment is exceptionally good.

In nearly every case a greater rate of filtration can be adopted if the material is arranged in the form of a percolating filter than if it is used in contact beds. The rate of filtration per cube yard in the case of percolating filters may, generally, be double or nearly double that which is permissible in the case of contact beds.

As regards percolating filters, where the liquor to be treated is weak, and the preliminary treatment has effectively removed the greater part of the suspended matter, it is probably best, in most cases, to use fine material arranged in the form of shallow filters.

Where the sewage to be treated is strong, and especially if the preliminary treatment leaves a considerable quantity of suspended matter in the tank liquor, it is best to use deep filters of coarse material.

Where the liquor to be treated contains much suspended matter, it is usually advisable to construct percolating filters of coarse material, *whatever the strength of the original sewage.*

For sewages of about average strength, from which most of the suspended matter has been removed in the preliminary treatment,either coarse or fine material may be used.

It may be added that, with very well clarified weak sewage, filters with a top layer of very fine material, such as sand, can be made to give good results with a rate of filtration of 400 or even 500 gallons per cube yard per day. In this case, however, the materi l must be washed (*e.g.*, by upward flow of tank liquor) at short intervals of, say, a week.

284. The three appended tables have been prepared to show the kind of results which may be expected by treatment, in various ways, of strong, medium, and weak sewages. The figures, in the majority of cases, are averages from a fair number of samples, and where they are not based on actual observations, they have been arrived at from general experience.

It has been assumed that the sewage does not contain trade waste or any other substance in sufficient quantity to inhibit the action of the micro-organisms, that the works are efficiently managed, and that the filtering material used in the filters has a rough and vesicular surface.

The rates of treatment per cube yard of filter, or per acre of land, which are given are for the dry weather flow, but except in the cases noted on the tables, they are rates which can be doubled during storm times.

The actual size of plant, or area of land, which would be required in any case would depend on the extra amount of sewage which, in the particular case, had to be treated on land or on filters in wet weather.

As we shall subsequently explain,* we think that local conditions should determine what this extra amount should be.

The question of comparative cost of land treatment and artificial treatment has been dealt with in an earlier section of this Report, and also considerations arising out of the risk of nuisance from the different methods of treatment.

* *See* pp. 209 and 210.

TREATMENT OF STORM-WATER SEWAGE.

285. The proportion of rain-water from a drainage area which reaches the sewers and is conveyed to the outfall depends very largely on local circumstances, and consequently differs at different places.

Where, for example, the greater part of the drainage area consists of roofs and paved roads, the proportion of rain flowing off by the sewers will be greater than where the area chiefly consists of a more or less pervious soil.

Further, the amount of rain reaching the outfall will depend, to some extent, on whether the district is flat or hilly, the gradient of the main and tributory sewers, and what storm overflows are provided.

The system of sewerage will also make a considerable difference to the volume of liquid arriving at the outfall. Where a completely separate system of sewers for surface water exists, there will be only a small increase in volume due to rain ; with the partially separate system, there will be a considerable increase ; and with the combined system, a still greater increase.

286. At Hampton, which is provided with a separate system of sewers for surface water, we estimated the dry weather flow during the years 1902 and 1903 to be approximately 150,000 gallons per day, and the actual daily flow in all weathers to be about 165,000 gallons on the average—an increase due to rain of 10 per cent. only.

At Horfield, where the drainage area is sewered upon the partially separate system, but where there are no storm-overflows, gaugings over four months (April, May, June and July, 1905) showed the average daily flow to be approximately 62,350 gallons. As the dry weather flow was approximately 38,000 gallons per day, this represented an increase of 64 per cent. on the dry weather flow.

At Little Drayton, where the sewerage is on the combined system, and where there are two storm-overflows, one of which was temporarily dammed for the purposes of our observations, gaugings over three months (January, February and March, 1905) showed that the average daily flow was 15,350 gallons, or about 30 per cent. above the dry weather flow of 12,000 gallons.

At Rhyl, where the sewerage of the area is upon the combined system, and where there were no storm-overflows, gaugings made by Mr. Baldwin Latham for two entire years (1900–1901) gave the following figures. (Report* by Mr. Baldwin Latham to the Commission, June 29th, 1903, pp. 3 and 17) :—

Rainfall.	Number of days on which 0·01 inch or more rain fell.	Total flow in sewers.	Dry weather sewage flow, including subsoil water.	Water supply.	Rainfall flowing off (*i.e.*, increase in flow due to rain).	Rainfall and subsoil water.
Inches.		Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
1900 26·52	168	165,683,520	123,281,534	91,438,652	42,401,986	74,244,868
1901 20·46	139	159,161,870	121,825,485	97,385,727	37,336,385	61,776,143

* Appendix V.

The increase of volume in this case, therefore, amounted to an average of 32·5 per cent. on the dry weather flow over the two years.

In his report, Mr. Baldwin Latham gives the following figures for Deal, which was also sewered on the combined system and had no storm-overflows:—

September, 1901, to February, 1903, inclusive.

Rainfall.	Number of days on which 0·01 inch or more rain fell.	Total flow in sewers.	Dry weather flow.	Rainfall flowing off.	Water supply to district.
Inches.		Gallons.	Gallons.	Gallons.	Gallons.
33·525	250	183,996,063	152,883,153	31,112,910	136,059,220

In this case, therefore, the increase was 20·35 per cent. on the dry weather flow.

At Rochdale, which is sewered upon the combined system, where the greater part of the area is paved or roofed, but where some thirteen storm-overflows exist, Mr. S. S. Platt, the Borough Surveyor, by gaugings extending over the year 1904, showed that the increase was roughly 52 per cent. of the mean dry weather flow.

At Oswestry, where the combined system is in use, but where the main storm-overflow is set rather low, Mr. G. W. Lacey, the Borough Surveyor, has found the increase to be about 21 per cent. of the mean dry weather flow. In this case a large quantity of subsoil water gains access to the sewers.

At Chorley, where the combined system is in use, where the main storm-overflow is set at about three times the mean dry weather flow, and where there are two local storm-overflows, the increase is about 45 per cent. In this case a small stream finds its way into the sewers.

In his report already mentioned, Mr. Baldwin Latham gives gaugings of the sewage flow at Croydon for the years 1880 to 1886 inclusive. The figures are summarised in Table 14, p. 28 of the report. From these figures, it will be seen that the increase of flow at that town due to rainfall was only 11·6 per cent. on the dry weather flow in the sewer, as calculated from the water supply. But it should be specially noted that in this case subsoil water is present in the sewers in the proportion of about 1·5 volumes to 1 of sewage, the consequence being that all variations of flow in the sewers are considerably levelled down.

Croydon is sewered upon the partially separate system, and there are no storm-overflows on the system.

287. While it is obvious from these few examples that the circumstances of different places vary considerably, the data available in regard to the effect of storms on the flow of sewage are exceedingly scanty.

In some few places records have been kept for a considerable period of the variation in flow in the outfall sewer and of the volume of sewage treated, but, so far as we are aware, there is little or no information available showing the volumes of liquid which have passed over storm overflows during the same period. It is, however, in some cases enough to do considerable damage to the river.

In the present state of knowledge, we consider that any regulations in regard to the amount of storm sewage to be treated and the method of treatment should be of a tentative character, and that, as regards storm overflows, each place must, to a great extent, be dealt with according to local circumstances. The general principle which should be followed is, we consider, that each local authority should so arrange its sewerage system as to prevent unpurified sewage from passing into the river or stream to an extent likely to cause nuisance.

288. As regards the effect of storms on the character of the sewage, the evidence which we have received, and also our own observations, show that, for the first hour or more, the effect of a storm is to increase the amount of organic matter in solution in the sewage as it arrives at the works, and also very largely to increase the suspended solids.

In our experience, the first flush of storm water contains a very large quantity of suspended matter washed out of the sewers, and is organically very impure. This flush, moreover, usually occurs at the time when the rainfall flowing off the area causes the maximum flow in the sewer, the consequence being that an ordinary storm-overflow on the sewers often has the effect of diverting to a water-course the worst part of the storm-water, while allowing the less foul storm sewage which arrives later to pass to the tanks or filters.

289. As a general rule, the difficulty of dealing with storm-water lies, not so much in the actual quantity flowing off an area as the result of rain, as in the rate at which it flows off. This is, of course, much more marked at some places than at others, the flow-off of rain-water being much more rapid when the greater part of the drainage area is more or less impervious, where the district is hilly, or where the sewers are laid upon a steep gradient. For instance:—

> At Calverley—population 2,300—where the district is hilly, the main sewer steep, the sewerage system combined, and with rock immediately underlying the soil, as the result of a rainfall of 0·46″ falling in five showers on June 9th, 1902, the flow of sewage showed five sudden rises bringing the rates of flow up to 13, 32, 26, 29 and 30 times the mean dry weather flow. The total flow of sewage for the day, however, was only increased from the mean dry weather flow of 12,000 gallons to 43,700 gallons, or 3·64 times.
>
> If a storm overflow had been set at Calverley to come into operation when the rate of flow was six times the mean dry weather flow, a large quantity of storm-water would have been discharged, untreated, on this day; whereas if a reserve empty tank, with a holding capacity of about 12,000 gallons, had been provided, and the overflow had been from this tank, the whole of the sewage and storm-water would have been treated; the beds receiving 3·64 times the normal quantity of sewage.

This is not an unusual occurrence at Calverley, and it has, moreover, been often observed there and at other places that the storm sewage is usually most foul when the storm flow is at its maximum rate.

On the other hand, if the district is flat, and especially if there is much leakage of subsoil water into the sewers, the flow of sewage will increase less rapidly as the result of rain, but continue swollen for some hours, or possibly some days. Halton, Oswestry, and Newton-le-Willows may be cited as illustrations.

290. In our opinion, the difficulties of dealing with the increase in flow, due to storms, can best be met by the provision of stand-by tanks to receive the storm sewage in excess of that which can be passed through the ordinary tanks. The main overflow at the works should be from the stand-by tanks, and not from the outfall sewer, so that no sewage may escape without some settlement.

The stand-by tanks should, of course, be kept empty as far as possible, so as to be at once available when a storm comes on.

We have not sufficient experience to enable us to suggest by what rules the capacity of the stand-by tanks should be determined, but we should think that tanks capable of holding a †quarter (six hours' flow) of the mean daily dry weather flow would usually be sufficient.

Local circumstances would, however, have to be considered in settling the capacity required for any particular place.

291. As illustrating the effect of stand-by tanks of the capacity suggested, we may give some figures taken from the report of Mr. Baldwin Latham, to which we have already referred.

At Friern Barnet sewage works, during nineteen wet days (average rainfall at the sewage works, 0·281″ per day), in August, September and October, 1887, instead of a total dry weather flow of sewage of 232,009 cubic feet, 515,793 cubic feet were found to arrive, 283,784 cubic feet being therefore due to rain. Of the total (515,793 cubic feet), 125,679 cubic feet, or 24·37 per cent., arrived at a rate in excess of three times the mean dry weather flow; 89,558 cubic feet, or 17·36 per cent., in excess of four times the mean dry weather flow; 67,412 cubic feet, or 13·07 per cent., in excess of five times the mean dry weather flow, and 50,015 cubic feet, or 9·7 per cent., in excess of six times the mean dry weather flow.

Assuming that all sewage up to three times the mean dry weather flow had been taken through the ordinary precipitation tanks, and that all flows in excess of this were directed into stand-by tanks of capacity 3,050 cubic feet (the dry weather flow at Friern Barnet was 12,211 cubic feet per day), then, out of a total of 515,793 cubic feet, 390,114 cubic feet (75·6 per cent.) would have been filtered in the ordinary way, and 125,679 cubic feet, or 24·37 per cent., would have received, before discharge into the water-course, the settlement shown in the following table:—

† Stand by tanks are, we believe, giving excellent results at Colne, Lancashire, and also at Chorley. We understand the stand by capacity at Colne is equal to about one-half the daily dry weather flow, and at Chorley to about one-third of the dry weather flow.

Date.	Number of hours the flow exceeded 3 times the mean dry weather flow (which was 12,211 cubic feet per day).	Volume of sewage in excess of 3 times the mean dry weather flow.	Settlement given in stand-by tanks.
1887.		Cubic feet.	
Aug. 16	5 hours	9,588	1 to 6 hours' continuous flow settlement after filling.
„ 17	1 hour	634	Quiescent settlement.
„ 20	1 hour	118	Quiescent settlement.
„ 26	3 hours	3,485	Mostly quiescent settlement.
„ 28	2 hours	1,243	Quiescent settlement.
„ 29	1 hour	1,492	Quiescent settlement.
„ 30	10 hours	16,620	1 to 6 hours' continuous flow settlement.
„ 31	8 hours	32,554	1 to 6 hours' continuous flow settlement.
Sept. 1	12 hours	11,909	1 to 6 hours' continuous flow settlement.
„ 2	3 hours	1,150	Quiescent settlement.
„ 3	6 hours	4,583	Quiescent settlement
„ 4	1 hour	118	Quiescent settlement.
„ 6	3 hours	6,341	1 to 6 hours' continuous flow settlement.
„ 7	9 hours	5,238	1 to 6 hours' continuous flow settlement.
„ 16	4 hours	5,246	1 to 6 hours' continuous flow settlement.
„ 17	9 hours	17,431	1 to 6 hours' continuous flow settlement
„ 26	3 hours	2,246	Quiescent settlement.
„ 30	3 hours	1,175	Quiescent settlement.
Oct. 10	5 hours	4,506	1 to 6 hours' continuous flow settlement.

The results obtained by Mr. Baldwin Latham at Croydon throughout the years 1880 to 1886 show that in a total number of 139 days upon which heavy rain fell (average rainfall per day 0·488″), out of a total of 73,768,896 cubic feet of sewage and rain-water flowing in the sewer, 12,201,773 cubic feet (or 16·2 per cent.) arrived at a rate in excess of three times the mean dry weather flow.

Taking the dry weather flow at Croydon to be 321,000 cubic feet, stand-by tanks of the capacity suggested would, in this case, have held 80,000 cubic feet, and, if the whole of the sewage and storm-water up to three times the dry weather flow had been passed through the ordinary tanks and plant, then 16·2 per cent. (12,201,773 cubic feet) of the total flow would have been sent into the stand-by tanks. Of the 139 wet days during the period stated, the total flow in excess of three times the dry weather flow only exceeded 80,000 cubic feet, or the assumed capacity of the stand-by tanks, on fifty-two days. In this case, of the total flow of 12,201,773 cubic feet, in excess of three times the dry weather flow, 7,696,935 cubic feet would have received quiescent settlement in the stand-by tanks and 4,504,838 cubic feet from one to six hours' continuous flow settlement, before discharge into the water course.

Mr. Latham's gaugings of the South Norwood sewage flow show that on fourteen wet days between January 13th and August 11th, 1866 (average rainfall per day 0·35″), out of a total flow of sewage and storm-water of 1,617,594 cubic feet, of which not less than 1,268,217 cubic feet were due to rain, 881,453 cubic feet (or 54·49 per cent.) arrived at a rate in excess of three times the dry weather flow.

In this case, the provision of stand-by tanks of the capacity suggested (six hours' flow) would have given quiescent settlement to 59,083 cubic feet out of the total flow of 881,453 cubic feet in excess of three times the dry weather flow, and one to six hours' continuous flow settlement to 822,370 cubic feet before discharge into the water-course.

It is to be observed from Mr. Baldwin Latham's report "that there were no storm-overflows in connection with the South Norwood sewers at the time the gaugings were made, and that, the district being of a more or less impermeable character, the volume of rain entering the sewers is very considerable, having regard to the extent of the district and the population draining to the sewers."

We are greatly indebted to Mr. Baldwin Latham for the Report which he kindly made to us on the subject of the increase in the flow of sewers caused by storms. This Report is published in Appendix V.

Storm Water Filters.

292. Speaking generally, we are not in favour of special storm-water filters, for although, if well constructed and scientifically managed (*e.g.*, as at Manchester), they can be made to give good results, our experience has led us to the conclusion that—as generally constructed and used—they do not effect a purification in proportion to their cost.

If storm-water filters are not regularly used, their oxidising efficiency may, in times of dry weather, become impaired. If, therefore, they are to be used in dry weather, in order that they may be kept mature, it appears to us that they should be as well and as carefully constructed as the ordinary filters. It seems also false economy to have some part of the filtering area out of use for any length of time when the additional area, if used, would be of advantage in giving regular periods of rest to sections of the normal filtering area.

Amount to be filtered.

293. We think it may be taken that it is practicable to filter three times the mean dry weather flow, and while there are few or no data to show that this is the right amount for which filtration is required, we doubt whether, as a general rule, the filtration of any larger amount will be found to be necessary to prevent nuisance.

Assuming, that three times the dry weather flow had to be filtered, we consider that it would only be necessary to provide at a works 1½ times the area of filter which would be necessary if only the dry weather flow had to be treated; this area would, in our opinion, allow of the filtration of three times the mean dry weather flow, as the filters can be worked at an increased rate during storms.

Recommendation.

(a) *Overflows on Branch Sewers.*

294. It is probably impracticable to dispense altogether with storm overflows on branch sewers, but in our opinion these should be used sparingly, and should usually be set so as not to come into operation until the flow in the branch sewer is several times the maximum normal dry weather flow in the sewer.

No general rule can be laid down as to the increase in flow which should occur in the branch sewers before sewage is allowed to pass away by the overflow untreated. The Rivers Board, or in districts where there is no Rivers Board, the County Council, should have power to require the local authority to alter any storm overflows which, in their opinion, permit of an excessive amount of unpurified sewage to flow over them. The local authority should have the right to appeal to the Central Authority in any case in which they consider that the requirement of the Rivers Board is unreasonable or impracticable of fulfilment.

The general principle should be to prevent such an amount of unpurified sewage from passing over the overflow as would cause nuisance.

(b) *Treatment of Storm Water Sewage at the Works.*

295. The usual requirements of the Local Government Board in regard to the treatment of storm sewage are that any increase in flow up to three times the normal dry weather rate should be fully dealt with by the ordinary complete plant, and that a certain number of additional dilutions—up to a total of six—should be treated on special storm filters. These requirements should, we think, be modified: they are, in our opinion, not sufficiently elastic; and, moreover, experience has shown that special storm filters, which are kept as stand-by filters, are not efficient. We find that the injury done to rivers by the discharge into them of large volumes of storm sewage chiefly arises from the excessive amount of suspended solids which such sewage contains, and that these solids can be very rapidly removed by settlement. We therefore recommend, as a general rule—

(1) That special stand-by tanks (two or more), should be provided at the works and kept empty for the purpose of receiving the excess of storm water which cannot properly be passed through the ordinary tanks. As regards the amount which may be properly passed through the ordinary tanks, our experience shows that in storm times the rate of flow through these tanks may usually be increased up to about three times the normal dry weather rate without serious disadvantage;

(2) That any overflow at the works should only be made from these special tanks, and that this overflow should be arranged so that it will not come into operation until the tanks are full;

(3) That no special storm filters should be provided, but that the ordinary filters should be enlarged to the extent necessary to provide for the filtration of the whole of the sewage, which, according to the circumstances of the particular place, requires treatment by filters.

(4) As regards the overflow from the outfall sewer to the stand-by tanks, the size of the stand-by tanks, the amount of storm sewage which should be filtered, and the arrangements generally for dealing with storm sewage at the outfall works, the Rivers Board, or the County Council in areas in which no Rivers Boards have been established, should have similar power to that which we have proposed in regard to overflows on branch sewers, and the Local Authority should have a similar right of appeal to the Central Authority.

SEPARATE AND COMBINED SYSTEMS OF SEWERS.

296. In recent years there has been a tendency to favour the adoption of separate sewers to carry what is called surface water, and some local authorities have obtained, by means of local acts, special powers enabling them to call upon frontagers in private streets to lay down two sewers instead of one.

In the Public Health Bill of last session (1907) a clause, dealing with this subject, was originally included, but it was omitted during the passage of the Bill through Parliament.

In our opinion the cases in which the provision of a separate system can properly be justified are rare, and it appears to us that the relative merits of the separate and combined systems have not always been sufficiently considered.

It is obvious that the provision of two systems of sewers and two sets of house drains would very largely increase the initial outlay on drainage works, the exact amount of the increase depending on local circumstances.

It seems generally to have been assumed by advocates of the separate system that the liquid brought down by surface water sewers is sufficiently pure to need no purification, and further, that by excluding this water from the ordinary sewers a much smaller area of land or filters, as the case may be, will suffice for the purification of the sewage.

Neither of these assumptions is altogether justified.

297. As regards the quality of the liquids which are discharged from surface-water sewers, we may refer to the following analyses which we have made :—

Chemical Analyses.

	Rugby.	Aldershot Camp.		South Norwood.			
No. of Sample.	231	311	314	174	179	182	187A
	Street washings taken from a surface water drain. Street very clean from heavy showers.	Street washings from surface ditch.	Street washings.	Street water. Incubated before analysis.	Surface street water. Incubated before analysis.	Street washings after running 2 hours.	Street water after 0·04″ rain.
	Monday, March 4th, 1901, 10 a.m.	Tuesday, July 2nd, 1901, 12.45 noon.	Wednesday July 3rd, 1901, 11.45 a.m.	Wednesday November 14th, 1900, 2.15 p.m.	Wednesday November 21st, 1900, 1.0 p.m.	Wednesday November 28th, 1900, 12.45 noon.	Saturday, December 1st, 1900, 11.15 a.m.
Ammoniacal Nitrogen	0·09	0·49	1·70	0·19	1·25	0·47	0·52
Albuminoid Nitrogen	0·10	0·49	0·34	0·06	0·14	0·42	0·08
Total Organic Nitrogen	0·23	1·05	0·64	—	—	0·65	—
Nitrous Nitrogen	0·01	trace.	0·0	0·24	—	trace.	0·10
Nitric Nitrogen	0·05	0·12	0·02			0·42	
Oxygen absorbed *at once*	0·66	2·76	0·81	0·39	—	2·76	0·23
Oxygen absorbed *in* 4 *hours*	1·83	8·93	3·46	—	—	9·79	—
Incubator test	Sweet.	Black Sulphides.	Black Sulphides.	No smell.	Putrid black Sulphides.	Strongly putrid.	Clean.
Suspended solids by Centrifuge (vols.)	91·0	Too gritty.	65	—	—	—	—
	Not much traffic on this street. The sample was brown and turbid, with a large amount of gritty sediment.	Turbid and brown, but the liquid had only a slight brown tinge when filtered. Much sand and also brownish suspended matter. Clean smell.	Turbidand brown. Considerable suspended matter with grit at bottom of bottle. Very slight putrid smell.	Liquid had a slight brown tinge. Much sand. Very pure (chemically).	No smell.	Very turbid. Filtered liquid brown but fairly clear. Much grit. No smell.	Dark coloured flocculent sediment.

Bacteriological Analyses.

Description of Sample.	Total number of Bacteria per c.c.		Number of B. Coli (or closely allied forms per c.c.).	Number of Spores of B. Enteritidis sporogenes per c.c.
	Gelatine at 20°C.	Agar at 37°C.		
96A. Rugby. Street water from separate system. June 20/00.*	15,900,000	94,000	10,000 (Indol + ·0001 c.c.) + ·01, – ·001 c.c. "gas" in gelatine shake culture.	+ ·1, – ·01 c.c. At least 10 but less than 100.
231. Rugby. Street "Washings." March 4/01.§	930,000	12,400	1,000 (Indol + ·001 c.c.) Negative result with ·1 c.c. "gas" in gelatine shake culture. + ·01, – ·001 c.c. Neutral red broth test. + ·01, – ·001 c.c. Litmus milk test.	+ ·01, – ·001 c.c. At least 100 but less than 1,000.
311. Aldershot Camp. Street "Washings." July 2/01.	7,500,000	640,000	+ ·0001, – ·00001 c.c. Neutral red broth test. + ·001, – ·0001 c.c. Litmus milk test. + ·001, – ·0001 c.c. "gas" in gelatine shake cultures.	+ ·1, – ·01 c.c. At least 10 but less than 100.
314. Aldershot Camp. Street "Washings." July 3/01.	22,800,000	900,000	+ ·00001 c.c. Neutral red broth test. + ·0001, – ·00001 c.c. Litmus milk test. + ·001, – ·0001 c.c. "gas" in gelatine shake cultures.	+ ·01, – ·001 c.c. At least 100 but less than 1,000.
174. S. Norwood. Brook (represents street "Washings"). 14/11/00.	1,470,000	88,000	At least 10 (Indol + ·1 c.c.). + ·1, – ·01 c.c. "gas" in gelatine shake cultures.	+ ·01, – ·001 c.c. At least 100 but less than 1,000.
179. S. Norwood. Surface water from streets. 21/11/00.	3,840,000	293 000	10,000 not 100,000 (Indol + ·00001 c.c.). + ·01 c.c. "gas" in gelatine shake cultures.	+ ·1, – ·01 c.c. At least 10 but less than 100.
182. S. Norwood. Street water after running 2 hours. 28/11/00.	13,700,000	154,000	10,000 (Indol + ·0001 c.c.).	+ ·01, – ·001 c.c. At least 100 but less than 1,000.
188B. S. Norwood. Street "Washings" after running 4 hours. 1/12/00.†	9,900,000	380,000	1,000 (Indol + ·001 c.c.) + ·1, – ·01 c.c. "gas" in gelatine shake cultures.	+ ·01, – ·001 c.c. At least 100 but less than 1,000.

* Two guinea-pigs (a and b) were subcutaneously inoculated with 1 c.c. (a) and 2 c.c. (b) of sample 96A (street washings). Both showed a strong local reaction: (a) guinea-pig recovered, but (b) guinea pig suffered from ulceration of the abdominal wall and died on the fourth day.

† Two guinea pigs (a, b) were subcutaneously inoculated with 1 c.c. (a) and 2 c.c. (b) of sample 188B; (a) guinea pig developed a big swelling at the site of the inoculation, but eventually recovered completely; (b) guinea-pig died on the second day.

§ A guinea pig was subcutaneously inoculated with 4 c.c. of sample 231 (street washings). It died on the second day, doubtless from the effects of the injection.

The chemical analyses of these samples may be shortly summarised as follows :—

No. 231, street "washings" taken from a surface-water drain at Rugby on March 4th, 1901, at a time when the street was very clean after heavy showers, was turbid and brown with a large amount of gritty sediment, but comparatively pure as regards organic matter; it withstood incubation.

No. 311, street "washings" from a surface-water ditch at Aldershot, was drawn on the 2nd July, 1901, after two days' heavy rainfall; at the time of drawing, the water in this ditch was flowing at about the rate of ten million gallons per 24 hours. The above sample was brown and turbid (though it had only a slight brown tinge when filtered), and it contained a great deal of sand and also brownish suspended matter. The analyses gave the high figure of 0·49 parts Albuminoid Nitrogen, 1·05 Total Organic Nitrogen, and 8·93 "Oxygen absorbed" in four hours. Though this had a clean smell when analysed, it became black and putrid on incubation.

No. 314, street "washings" and roof water from Aldershot Camp, drawn July 3rd, 1901, after three days' rain, was muddy from a considerable quantity of suspended solids with grit in addition. Though the aggregate organic matter was less than in sample No. 311 (the figures being 0·34 Albuminoid Nitrogen, 0·64 Total Organic Nitrogen, and 3·46 "Oxygen absorbed"), it was smelling slightly when analysed and became black and putrid on incubation.

No. 174, drawn November 14th, 1900, was a sample of surface water from streets and front roofs drawn at South Norwood during sharp showers, the weather having been showery on the day previous. It contained a good deal of sand, but was comparatively pure as regards organic matter and kept good upon incubation.

No. 179, drawn November 21st, 1900, was another sample of surface water from the South Norwood streets, after moderate showers, the streets having been previously washed fairly clean by rain. This did not contain much sediment, but was organically more impure than the preceding sample; it had no smell when received, but became putrid upon incubation.

No. 182 was drawn on November 28th, 1900, at South Norwood, after the surface drain had been running for three hours. It was very turbid and brown and contained much grit. Organically, it might be classed as a dilute sewage.

No. 187a, South Norwood street water, drawn December 1st, 1900, after a slight rainfall, was comparatively pure as regards organic matter. Though it showed a good deal of flocculent sediment, it kept sweet upon incubation.

Three out of these seven samples were therefore non-putrescible; but the other four were undoubtedly polluting liquids.

Bacteriologically, all the samples may be classed as bad.

Although the above samples were few in number, they show (1) that even when a street water is comparatively pure organically, it requires settlement for grit (Nos. 174 and 231); and (2) that even after long-continued rain, street surface waters may be very impure (Nos. 182, 311 and 314).

Valentine, 22407. Wilkinson, 22603. Wike, 23515. Reid, 20730–1.

298. The witnesses who have given evidence on this question have agreed that the first flush of water from a surface-water system during a storm is of such a foul nature that it ought to be purified, if practicable, especially if the system brings water from paved open spaces such as markets, squares, etc.

Messrs. G. H. Pickles and Raymond Ross gave the following analysis of a typical sample of surface water from a surface-water drain at Burnley, taken during the early period of a storm :—

	Parts per 100,000.
Free Ammonia	·8
Albuminoid Ammonia	·2
Chlorine	4·0
Oxygen absorbed	5·3
Total solids	71·2
Suspended matter	44·0

They stated, also, that this sample contained about 800,000 bacteria per c.c. as shown by gelatine plate cultivation at 23°C.

Mr. Bolton, in his evidence relating to Heywood, gives the following analysis of a sample of road water, taken in the principal streets during the first rushes of storm 21096.
surface water :—

	Parts per 100,000.
Ammoniacal Nitrogen	1·11
Albuminoid Nitrogen	·49
Oxygen absorbed in 3 minutes	12·5
Oxygen absorbed in 4 hours	19·9
Chlorine	8·7
Solids in suspension	84 { vol. 25 / non vol. 59
Solids in solution	73 { vol. 22 / non vol. 51
Total solids	157

299. Experience also shews that with two sets of drains to each house there is danger of the sewage drain being connected with the surface-water sewer, and in densely populated areas, slops and other filthy liquids are often emptied into street gullies, and pass directly into the surface-water sewer.

There can be no doubt, therefore, that the liquid brought down by surface-water sewers is frequently of a polluting nature, and that, in many cases, it might be necessary to provide for its treatment.

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300. As to the other assumption, that by keeping surface water out of the sewers the area of filters or land necessary for purification may be materially reduced, we may refer to the experiments which we carried out at Accrington, in regard to the filtration of diluted and undiluted septic tank liquor (see pages 16 and 110 *et seq.*).

These experiments shewed that, within ordinary limits of concentration and volumes treated, the amount and nature of the organic impurity present mainly determine, in practice, the ease or difficulty of purification; in other words, that, within limits, mere dilution does not affect the size of the filtering plant which is necessary. Of course, if the dilution is so great as to cause water-logging of the filters, their purifying power would be seriously diminished, and this statement would not hold good.

We may also observe that the flushing of sewers by rain water, which occurs with the combined system, is in itself useful, and that there is some evidence to show that filters work better when storm sewage, from which the solids have been settled, is occasionally passed through them.

24260, Fowler. 22745, Watson. 24955, Wilkinson.

301. As regards the cases in which the adoption of a separate system for surface water may be allowed, we may refer to the evidence of Dr. Fowler, Mr. Watson, and Mr. Wilkinson. These gentlemen have had considerable experience, and they expressed the view that in large towns the separate system is impracticable, that in urban districts a combined system is justified on sanitary and economical grounds, and that only in villages, country districts, and suburban areas, where there is little traffic and where the surface water will not be very foul, may the separate system sometimes be adopted with advantage.

With these views we generally concur, and we think it would be unwise to confer on all local authorities power to enforce the adoption of the separate system of sewerage, and the provision of two sets of drains in every house.

In our opinion this power should not be conferred on any local authority until the local circumstances have been carefully considered by some independent tribunal.

Recommendation.

302. We recommend that in any case in which a local authority wishes to adopt the separate system of drainage for the whole or any part of their district, they should be required to apply to the Central Authority, and that the Central Authority should be empowered to confer on the local authority, by order, such powers as may be deemed necessary.

As regards the powers which may be necessary, we may observe that the provisions which are generally contained in local Acts in regard to this matter seem to be defective. If separate sewers are provided, the local authority should have a clear power to enforce the provision of separate drains, but the local Acts to which our attention has been drawn do not modify the powers of the local authority under the general law in regard to bye-laws as to the drainage of houses.

Moreover, the powers of the local authority in this connection should not necessarily be limited to new streets and new houses.

As a general rule, the expense of altering existing drains should fall on the local authority, and there may be some instances in which it would be equitable that they should bear some portion of the additional cost even in the case of drains being constructed for the first time.

The Central Authority should therefore have power to include in their Order such provisions for the allocation of the cost as they consider equitable, having regard to the local circumstances.

PART VI.—STANDARDS FOR SEWAGE EFFLUENTS.

303. A number of chemists and others were kind enough to furnish us with their views on the question of standards, in response to a circular letter which we issued in May, 1903. This letter and the replies are printed in Appendix VII.

We have also examined several witnesses on this subject, and have ourselves made some experimental investigations.

The harm caused by allowing unpurified, or imperfectly purified, sewage to flow into rivers and streams may be placed under one or more of the following headings: – The de-aeration of the water of the river, and consequent injury to fish; the putrefaction of organic matter in the river to such an extent as to cause nuisance; the production of sewage fungus and other objectionable growths; the deposition of suspended matter, and its accumulation in the river bed or behind weirs; the discharge into the river of substances, in solution or suspension, which are poisonous to fish or to live stock drinking from the stream; the discoloration of the river; and the discharge into the river of micro-organisms of intestinal derivation, some of which are of a kind liable, under certain circumstances, to give rise to disease.

304. We observe that previous Commissions have reported that, of all the processes which were proposed for the purification of sewage, or of water polluted by excrementitious matter, there is not one which is sufficiently effective to warrant the use, for dietetic purposes, of water which has been so contaminated, and the 1868 Commission stated that, in their opinion, "rivers which had received sewage, even if that sewage had been purified before its discharge, were not safe sources of potable water." We, therefore, conclude that the framers of the Rivers Pollution Prevention Act, 1876, did not contemplate that local authorities should be required so to deal with their sewage that the rivers into which the purified sewage flowed might be regarded as safe sources of water supply, in cases in which the water was not to be filtered before distribution.

305. In our opinion much the same position must be taken up to-day. Although the methods available for the purification of sewage are more numerous than when the 1868 Commission reported, our examination of a very large number of effluents from sewage farms, and from artificial filters of various kinds, shows that, although such effluents may be very good as judged by chemical and physical tests, they are generally liable to contain large numbers of micro-organisms of intestinal derivation, and that if such organisms are to be destroyed, or eliminated, the effluents must be subjected to some treatment additional to that which is ordinarily employed.

We have carried out some experiments for the purpose of ascertaining the practicability of certain of the methods which have been suggested for the removal or destruction of these micro-organisms. These experiments, which are described in Dr. Houston's Report, Appendix IV., have shown that, while it would be practicable to render sewage effluents fairly pure, bacteriologically, the cost of the necessary additional treatment would be serious.

306. Moreover, a false sense of security would be obtained by the adoption of such further treatment unless, at the same time, storm overflows on sewers were abolished.

In the great majority of towns, sewers are provided with storm overflows, by which, in times of storm, large quantities of sewage are discharged into the river or stream untreated. Such discharges, we find, are frequently more impure, bacteriologically, than the normal crude sewage.

In the opinion of some engineering witnesses whom we have called before us, it would generally be impracticable to dispense with storm overflows, but assuming, as an engineering possibility, that they could generally be dispensed with, it is quite clear that the necessary enlargement of the sewers would involve a very large outlay. In some towns, if there were no storm overflows, the effect of a storm would be to cause the flow in the sewers to be very many times the normal rate for a short period,

307. By constructing a separate system of sewers for storm water the effect of storms on the other sewers would no doubt be greatly lessened, but if bacterial purity is to be required in the case of all discharges from sewers, it would be necessary to provide a second plant for the treatment of the liquids flowing in the storm water sewers, as these liquids are often exceedingly impure.

The amount of liquid which would be brought down by such separate sewers would vary, according to local conditions, but during the course of a year it would probably be at least half as much as the volume carried by the other set of sewers.

308. In our opinion, the cost of reconstructing the sewers so as to allow of the abolition of storm overflows, together with the cost of providing and maintaining purification plant which could be relied on at all times to render the total refuse waters of a town both chemically and bacteriologically pure, would in most cases be practically prohibitive; and further, even if this additional burden were placed on local authorities, the water of rivers would generally still require to be treated before it could be safely distributed for drinking purposes.

309. We are satisfied that rivers generally, those traversing agricultural as well as those draining manufacturing or urban areas, are necessarily exposed to other pollutions besides sewage, and it appears to us, therefore, that any authority taking water from such rivers for the purpose of water supply must be held to be aware of the risks to which the water is exposed, and that it should be regarded as part of the duty of that authority, systematically and thoroughly, to purify the water before distributing it to their customers.

310. Apart from the question of drinking waters, we find no evidence to show that the mere presence of organisms of a noxious character in a river constitutes a danger to public health or destroys the amenities of the river. Generally speaking, therefore, we do not consider that in the present state of knowledge, we should be justified in recommending that it should be the duty of a local authority to treat its sewage so that it should be bacteriologically pure.

311. The evidence adduced before us and the results of our own investigations show that the extent to which the purification of a sewage need be carried in order that none of the other injuries mentioned in paragraph 303 shall be done to the river into which it is discharged varies with the particular circumstances of the town and river concerned.

The statute law, however, recognises no graduated standards of purity for sewage effluents.

Under the Rivers Pollution Prevention Act, 1876, in the case of sewage entering non-tidal waters, the duty is imposed on the local authority of adopting the best practical and available means to render the sewage harmless before it enters the river, and no local circumstances may be taken into account. The effluent by itself is alone to be considered.

312. We fully realise that from the point of view of administration it is simpler to regard the effluent alone, and also that it has not been usual for County Councils, Rivers Boards, or others, to press the provisions of the Act of 1876 unduly. Our terms of reference require us, however, to have regard to the "*economical* and efficient" discharge of the duties of local authorities, and in view of the importance of not requiring a local authority to incur any further expenditure on sewage disposal than the circumstances of its area require, we feel strongly that the law should be altered so as to allow local circumstances to be taken into account.

Suspended Solids in Effluents.

313. One point in regard to which we think that strict regulations will usually be found necessary is the reduction of the suspended solids of an effluent to a low figure, before that effluent is allowed to escape into a watercourse. As is well known, these suspended

solids are always—or practically always—putrescible. Indeed, we cannot recall any instance in our own experience in which such solids, when examined apart from the liquid portion of the effluent, were non-putrescible.

Our observations show that the volatile matter of the suspended solids in effluents from artificial filtration may be taken, on a rough average, as constituting about two-thirds of the whole, the remaining one-third being mineral matter. Although it is not strictly correct to say that this "volatile" matter is all organic, we think that it may be considered so for practical purposes.

A description, by Messrs. O'Shaughnessy and Kinnersley, of the suspended solids washed out in the effluent from one of the Birmingham percolating filters is to be found in the *Journal of the Society of Chemical Industry* for 1906. They found them to consist of a very complex mixture of structureless matter, dead organisms undergoing disintegration, zooglea, mineral matter, etc.

A large number of specific instances are given, in the *reports on the various sewage works which have been under observation for the Commission, of the rates at which such solids take up dissolved oxygen from water.

The results show that the suspended solids from biological sewage filters, whether contact beds or percolating filters, are in themselves putrescible, and that they are capable of taking up oxygen from water comparatively rapidly. So long as such solids are kept moving in oxygenated water, or in water containing nitrate in solution, they will not give rise to nuisance from smell, but if allowed to accumulate in the sluggish reaches of a stream, they will ultimately form black and putrid mud, which will draw upon the oxygen in the supernatant water; if present in very large quantity, they will, in those circumstances, give rise to objectionable conditions.

314. Our own experience, and also the evidence which we have received, leads us to attach much importance to the prevention of a large amount of suspended solids being discharged into most rivers and streams, and our observations show that it is quite practicable to produce effluents fairly free from suspended solids.

The following places, among others, where various systems of treatment are followed, may be cited as giving a general effluent containing at most 3 parts of suspended matter per 100,000:—

Birmingham.	Friern Barnet.	Royton.
Burnley.	Guildford.	Salford.
Carshalton.	Hampton.	Salisbury.
Caterham.	Hendon.	Staines.
Chesterfield.	Heywood.	St. Albans.
Chorley.	Kingston.	Shipley.
Clifton.	Newcastle-under-Lyme.	Wednesbury.
Darwen.	Oswestry.	Withington.
Dorking.	Prestolee.	Withnell.
Exeter	Radcliffe.	

As a general rule, we consider that the harm due to suspended solids would not be serious, if the effluents contained not more than 3 parts of suspended solids† per 100,000, and it is shown by experience that this would not be an unreasonable figure to demand in the majority of cases. There are, of course, cases where a larger quantity of solids might be safely allowed in an effluent, while in some others even 3 parts might be too much.

Other Qualities of Effluents.

315. We shall discuss in the next section of this report various tests for sewage effluents, but we may at once state that we doubt whether the figures obtained in the laboratory have, in the past, been sufficiently considered in connection with observed conditions of the stream to justify positive inferences being drawn from such figures as to the effect of effluents on streams.

* See Appendix III. † This is equivalent, as a rule, to about 2 parts of organic matter in suspension.

In connection with an investigation which we are making in regard to the disposal of distillery waste liquids, we have constructed a number of artificial streams. We find that effluents which are derived from strong original liquids may often contain large amounts of organic matter in solution, and yet not take up dissolved oxygen rapidly from water, or cause injury to streams into which they are discharged. If these observations had not been made such effluents, judged by the empirical tests in common use, might have been regarded as polluting liquids.

These observations, together with other experiments and the work done by others, show that the effect of an effluent on a stream does not generally depend on the absolute amount of organic matter contained in it, but rather on the nature and condition of that organic matter, and that the important thing to ascertain in examining an effluent, is the extent to which the original organic matter has undergone fermentation.

We are extending this method of observation to a variety of streams and effluents, and in our final report we hope to be able to indicate, by reference to figures obtained in the laboratory, a range of standards of varying degrees of stringency.

Recommendation.

316. We recommend that the Central Authority should determine the nature of the tests which are to be applied for the purpose of standards, and that it should be made the duty of the Rivers Board, or of the County Council, in areas not under the jurisdiction of a Rivers Board, to determine from time to time, subject to appeal to the Central Authority, what standards should be adopted.

317. In the first instance it would be convenient that the Central Authority should prescribe one standard for all non-tidal waters, in place of the existing statutory provisions. It would then rest with the Rivers Board or County Council to fix, subject to appeal to the Central Authority, a higher or lower standard, in any case in which they were of opinion that the circumstances required or justified a different standard.

318. We further recommend that no action should be allowed to be brought in respect of damage alleged to be due to the discharge of an effluent which complies with the standard fixed for the water into which it is discharged, but that in such cases complaint should be made to the Central Authority, and, if a *prima facie* case is made out, that Authority should ascertain whether the complaint is well founded and should be empowered to fix a different standard if the circumstances are shown to require it.

In cases where it is alleged that the effluent does not comply with the statutory standard, and that damage is caused by the discharge of such effluent, action should be brought in the ordinary courts.

But any questions arising as to whether the effluent complies with the statutory standard or as to whether the damage has been caused by the discharge of the effluent in respect of which complaint is made, should be referred by the Court to the Central Authority for determination. The costs of such determination should be borne by the parties to the action in such proportions as the Court may determine.

319. Power should be conferred on the Central Authority to suspend from time to time the operation of any standard, to allow time for the construction of works, or for any other reason which, in their opinion, justified such suspension.

TESTS FOR SEWAGE EFFLUENTS IN RELATION TO STANDARDS.

320. The experiments which we have already made show that the mere estimation of the amount of organic matter in an effluent does not, by itself, afford a sufficiently reliable index as to the effect which that effluent will have on any stream into which it may be discharged.

Effluents which are derived from strong sewages may contain comparatively large amounts of organic matters, and yet not take up oxygen rapidly from water or cause any serious growth of sewage fungi in streams, while effluents derived from weak sewages, although containing smaller amounts of organic matters, may take up oxygen comparatively rapidly and foul a stream into which they are discharged.

The primary object of applying tests to a sewage effluent should be to ascertain whether the effluent may be discharged into a stream without giving rise to effects such as these, and we are extending our observations on streams with a view to ascertaining the value of various tests from this point of view.

Until these observations are completed we do not propose to report finally on the question of tests and standards. We can, however, at once state that any figures of analysis, unless they bear a direct relation to the state of the effluent as regards fermentative change, may be misleading.

321. According to our present knowledge, an effluent can best be judged by ascertaining, first, the amount of suspended solids which it contains, and, second, the rate at which the effluent, after the removal of the suspended solids, takes up oxygen from water.

In applying this test it is important that the suspended solids should be removed, and estimated separately.

Small variations in the amount of suspended solids in effluents may seriously affect the rate at which the effluents take up oxygen, and unless these solids are first removed, the dissolved oxygen absorption test might give a misleading figure as to the character of the effluent.

322. For the guidance of local authorities we may provisionally state that an effluent would generally be satisfactory if it complied with the following conditions :—

(1) That it should not contain more than 3 parts per 100,000 of suspended matter ; and

(2) That, after being filtered through filter paper, it should not absorb more than :

(*a*) 0·5 part by weight per 100,000 of dissolved or atmospheric oxygen in 24 hours ;

(*b*) 1·0 part by weight per 100,000 of dissolved or atmospheric oxygen in 48 hours ; or

(*c*) 1·5 parts by weight per 100,000 of dissolved or atmospheric oxygen in 5 days.

At many sewage works which we have had under observation effluents of this class are uniformly produced.

As regards the carrying out of the dissolved oxygen test, or aeration test as it is sometimes called, we may refer to page 15 of this Report, which deals with the test in relation to sewage, and also to pages 96 and 438 of Appendix VI.

Growths in Streams.

323. The question of growths in streams is one of some importance and difficulty.

Even the best effluents contain a certain amount of plant food in solution and therefore tend to promote vegetable growths. In the case of a stream receiving well purified and nitrated effluents, these growths are green. If, however, green growths form in quan-

tity, and become detached and washed down into stagnant pools, they must ultimately undergo decomposition and may possibly give rise to nuisance.

This aspect of the question is being further studied ; but we may remark that it does not seem practicable to purify sewage thoroughly without the production of nitrates which remain in the effluent, and tend to promote growths.

In the case of a stream receiving imperfectly purified effluents, grey growths (leptomitus, sphaerotilus, etc.) may be fostered. These not only give a stream an unpleasant appearance, and tend to choke its bed, but when washed down and allowed to accumulate, may become very offensive, especially in warm weather. So far as our observations have gone, such growths flourish best in a mixture consisting partly of unpurified sewage liquor and partly of oxygenated and nitrated water or effluent.

This is illustrated by some channel experiments at Chorley, which we began towards the end of February, 1907. One of the channels carried a mixture of 75 volumes of filter effluent and 25 volumes of well-clarified precipitation tank liquor. The mixture gave the following average figures of analysis :—

Parts per 100,000.	Average.	Number of Estimations.
Ammoniacal nitrogen (1·34 to 3·6)	2·2	4
Albuminoid nitrogen (0·14 to 0·20)	0·16	3
Oxidized nitrogen (1·76 to 2·32)	2·2	3
"Oxygen absorbed" in 4 hours (0·81 to 2·21)	1·4	6
Dissolved oxygen taken up from water *in 5 to 8 days* (0·65 to 2·81)	1·4	6
Dissolved oxygen taken up from water *in 24 hours* (0·18 to 1·16)	0·8	3
Incubator test (by smell)	All passed.	6

In spite of these comparatively good figures, and the fact of the liquid being non-putrescent upon incubation, the channel was, in June, 1907, filled from end to end with a thick grey fungoid growth.

Another channel, conveying purified filter effluent, had only a green growth, coated to some extent with effluent solids, while a third channel which carried filter effluent plus a proportion of storm water equivalent, *on the average*, to 30 per cent. of the total volume of liquid delivered to the channel, became full of black putrescent mud, but had little or no sewage fungus.

We are not at present in a position to state with certainty, by reference to figures of analysis, what effluents will, and what effluents will not, cause objectionable growths in streams.

Nitrates in Effluents.

324. Although a well nitrated effluent usually takes up dissolved oxygen from water slowly, this is not always the case. The following effluent (from a strongly ammoniacal sewage) is an instance of this variation :—

	Parts per 100,000.
Ammoniacal nitrogen	13·02
Albuminoid nitrogen	0·48
Nitrous nitrogen	0·26
Nitric nitrogen	4·70
Solids in suspension	Trace.
"Oxygen absorbed" at 27° C. (80° F.) *at once*	1·96
"Oxygen absorbed" at 27° C. (80° F.) in 4 hours	5·62
Dissolved oxygen taken up from water at 18°C. (65°F.)	
(*a*) in 24 hours	0·89
(*b*) in 48 hours	2·16
Incubator test (by smell)	Passed.

Here, although there are about five parts of oxidised nitrogen present in the liquid, there still remains a considerable quantity of readily oxidizable organic matter. Conversely, instances might be given of effluents, poor in nitrate, which took up very little dissolved oxygen from water.

Chemical Poisons in Effluents.

325. We have not yet studied this point in much detail, but we think that very few effluents in which the organic matter had been well oxidized, would contain chemical poisons in quantity sufficient to do harm to fish life, and that the heavy metals would be brought down in the sludge. When the Leeds sewage was known to contain a considerable quantity of arsenic, the effluents from its biological filtration showed only minute traces of it.

Cases may occur where chlorine compounds, acids, or alkalies, might be present in an effluent. We have heard, for instance, of the addition of lime, for the purpose of temporarily sterilizing a poor effluent; such effluents would of course be detrimental to fish.

The Relation of certain Tests to One Another

326. Dr. McGowan has made a careful comparison of the figures of analysis of 163 effluents of varying degrees of purity and obtained by various artificial processes. In most of the cases a determination was made of the dissolved oxygen taken up by the effluent from water in twenty-four hours, as well as of the "oxygen absorbed" from permanganate, etc.

As a result of this comparison we find that:—

(1) The figures for albuminoid nitrogen and for "oxygen absorbed" from (strong) permanganate in four hours show a close parallelism, but bear no constant ratio to one another. In well, or fairly well, purified effluents, comparatively free from suspended solids, the ratio will usually be something like one part of albuminoid nitrogen to ten parts of "oxygen absorbed" in four hours at 27° C. (80° F.).

(2) The ratio of albuminoid to total organic nitrogen in an effluent is usually from 1 : 2 to 1 : 3, though it may in certain cases be either below or above those figures. When an effluent contains a large quantity of suspended solids, the ratio tends to be high.

(3) There is nothing like a definite ratio between the figures for albuminoid (or total organic) nitrogen and ammoniacal nitrogen in an effluent. The actual quantity of free ammonia left in an effluent, especially if it be compared with that in the original sewage or tank liquor, furnishes, however, a very valuable indication of the extent to which oxidation has been promoted by the filter.

(4) The ratio of "oxygen absorbed" at once from (strong) permanganate to "oxygen absorbed" in four hours is usually fairly constant at about 1 : 3 to 1 : 4, though there are a good many exceptions.

The main object of the test—"oxygen absorbed" at once (or in three minutes)—is to show whether there is an abnormal quantity of quickly oxidisable matter, whether organic or inorganic, in a sewage liquid. It cannot be regarded as a substitute for the four hours test.

(5) The ratio of dissolved oxygen taken up from water in twenty-four hours at 18° C. (65° F.) to "oxygen absorbed" from permanganate in four hours at 27° C. (80° F.) shows very wide variations, and the figures cannot be said to bear much relation to one another, except in a very general way. When the ratio is low, the effluent is more often than not of poor quality. With a high ratio —say, over 1 : 5—the effluent is almost always a good one.

(6) The ratio of dissolved oxygen taken up in *twenty-four hours* to "oxygen absorbed" from permanganate *at once* varies very much also; as a general rule the better effluents show the higher ratios.

The Relation between the Incubator or Non-putrescibility Test and the taking up of Dissolved Oxygen from Water.

327. There is no certain correspondence between the results of these two tests. An artificial effluent, made by adding excess of nitrate to a diluted sewage, takes up dissolved oxygen at a rapid rate, but the nitrate prevents it from putrefying upon incubation.

At the same time we find that when an effluent is pretty well purified, there is fairly definite relationship between the two tests.

Of the 163 effluents of varying degrees of purity which were examined by Dr. McGowan, 107 did not putrefy on incubation ; forty-nine putrified ; and seven were doubtful.

Of the 107 effluents which did not putrefy on incubation, ninety-eight were tested for dissolved oxygen absorption, and were found to take up an average of 0·57 part per 100,000 in 24 hours. The figures ranged from 0·0 to 3·2 parts per 100,000, and in most of the cases where a high figure was obtained, there was much suspended solid in the effluent. There were thirty-five effluents which contained over 3 parts of suspended solids per 100,000 (the average being 7·1 parts), and these took up an average of 0·85 part of dissolved oxygen in 24 hours. The remaining sixty-three effluents, which contained 3 parts or less of suspended solids per 100,000, took up an average of 0·41 parts of dissolved oxygen. Again, of nineteen of the effluents which did not putrefy on incubation, but which seemed of somewhat indifferent quality as judged by the figures of analysis, only five took up more than 1 part of dissolved oxygen.

Of the forty-nine effluents which putrefied on incubation, thirty-three were tested for dissolved oxygen absorption, and were found to take up from 0·57 to 7·0 parts (or an average of 2·3 parts) of oxygen from water in 24 hours.

We may summarise the position as follows :—

(1) It is very rare indeed for an effluent which (apart from suspended solids) takes up little dissolved oxygen from water to fail upon incubation.

(2) It is comparatively infrequent for an effluent (apart from suspended solids) which withstands incubation to take up dissolved oxygen from water at a rapid rate.

(3) In the great majority of cases an effluent which fails to withstand the incubator test will also take up much dissolved oxygen from water ; and

(4) An effluent which takes up much dissolved oxygen from water will also usually fail upon incubation.

Both these tests depend upon the fermentative changes which may take place in an effluent, on keeping, but a standard based upon a low figure of dissolved oxygen absorption would, in some cases, be more stringent than a standard of non-putrescibility alone.

328. It is, we think, probable that an effluent which does not take up dissolved oxygen from the water of a stream more rapidly than that water can naturally re-aerate itself from the air, would neither give rise to unpleasantness nor—assuming the absence of chemical poisons—injure fish life, but this is a point on which we shall be able to speak more definitely after the conclusion of our observations on streams.

** Condition of Effluent as regards Aeration.*

329. In some circumstances the question of the amount of dissolved oxygen contained in the effluent would be of importance. If the effluent were almost completely de-aerated, as many contact bed effluents are, and were to be discharged into a stream, the volume of which was small as compared with the volume of effluent, the mere admixture of stream and effluent would, at all events near the point of discharge, produce a liquid in which the amount of dissolved oxygen would be far below the saturation point.

It should be added that it would probably not be difficult to aerate a contact bed effluent previous to its discharge into the stream.

Effluents from percolating filters are usually well aerated.

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* See also Report by Dr. Letts and Dr. Adeney. Appendix VI.

PART VII.—POLLUTION OF ESTUARIES AND TIDAL WATERS.

330. In our fourth report we dealt with the question of the pollution of tidal waters, with special reference to contamination of shell-fish.

As regards the standard of effluent that can be permitted for tidal waters, having regard to the reasonable protection of salmon fisheries and the avoidance of nuisance, we stated that we did not think it practicable to lay down any fixed rules, as the necessities of each case would depend on a variety of considerations. We were, however, of opinion that in certain circumstances sewage should be purified before it is discharged into tidal waters.

We therefore proposed that the Rivers Board should be empowered, subject to appeal to the Central Authority, to call upon a local authority to adopt some method of purification in cases where purification was necessary.

331. Professor Letts and Dr. Adeney kindly agreed to collect and collate the results of investigations bearing on the question of standards for tidal waters, as regards offensive putrefaction, and injury to fish, and they have presented to us a report on this subject which is contained in Appendix VI.

Their report contains the results of much original work as well as the results, which they have brought together, of the work done by other observers.

Professor Letts and Dr. Adeney have devoted a large amount of time to the work, and we are greatly indebted to them for their report, which is a document of considerable value.

The report affords further proof that any provisions which may be enacted for dealing with the pollution of tidal waters must be of an elastic character.

As an appendix to the report, Dr. Gilbert Fowler has supplied a memorandum as to the results of some observations which he made as to the discharge of septic tank sludge into an estuary near Ipswich.

PART VIII.—SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

(I) PREVIOUS REPORTS.

Interim Report. Cd. 685 [1901].

332. Our first Report was of an interim character and contained the following conclusions :—

(1) No land is entirely useless for purification of sewage, "but in the case of stiff clay and peat lands "the power to purify sewage seems to depend on the depth of the top soil."

"There are, of course, numerous gradations in the depths of top soil which are met with in nature, and "it is not easy to draw the line between lands which contain a sufficient depth to justify their use, and lands "which do not."

"We are, however, forced to conclude that peat and stiff clay lands are generally unsuitable for the "purification of sewage, that their use for this purpose is always attended with difficulty, and that where "the depth of top soil is very small, say 6 inches or less, the area of such lands which would be required "for efficient purification would in certain cases be so great as to render land treatment impracticable."

(2) ". . . we are satisfied that it is practicable to produce by artificial processes alone either from sewage, "or from certain mixtures of sewage and trade refuse, such, for example, as are met with at Leeds and Man- "chester, effluents which will not putrefy, which would be classed as good according to ordinary chemical "standards, and which might be discharged into a stream without fear of creating a nuisance."

"We think, therefore, that there are cases in which the Local Government Board would be justified "in modifying, under proper safeguards, the present rule as regards the application of sewage to land."

(3) ". . . as a result of a large number of examinations of effluents from sewage farms and from artificial "processes we find that while in the case of effluents from land of a kind suitable for the purification of sewage "there are fewer micro-organisms than in the effluents from most artificial processes, yet both classes of "effluents usually contain large numbers of organisms, many of which appear to be of intestinal derivation, "and some of which are of a kind liable, under certain circumstances at least, to give rise to disease."

"We are of opinion, therefore, that such effluents must be regarded as potentially dangerous, and we "are considering whether means are available and practicable for eliminating or destroying such organisms, "or, at least, those giving rise to infectious diseases."

(4) "It is of the utmost importance that the simplest possible means should be provided for adequately "protecting all our rivers," . . . and "it will be desirable, probably for some time to come, that scientific "experiments should be carried on in order to ascertain all the real dangers of pollution, against which they "should be protected."

"In the present state of knowledge, and especially of bacteriology, it is difficult to estimate these dangers "with any accuracy, and it seems quite possible that they should be either exaggerated or under-valued "according to the pre-disposition of those who have to deal with them. An authority, guided by medical "considerations, might not unnaturally be inclined to insist on a degree of purity which may ultimately "prove in certain cases to be uncalled for, while another authority, with its mind fixed upon economy, "might shrink from taking essential precautions."

. . . "the general protection of our rivers is a matter of such grave concern as to demand the "creation of a separate Commission, or a new department of the Local Government Board, which shall be "a Supreme Rivers Authority, dealing with matters relating to rivers and their purification, and which, "when appeal is made to them, shall have power to take action in cases where the local authorities have "failed to do so."

Second Report. Cd. 1178 [1902].

333. Our second Report was a formal document covering certain scientific papers which were presented as an appendix to that Report.

Third Report. Cd. 1486 [1903].

334. In our third Report we dealt with the relations between local authorities and manufacturers in regard to the disposal of manufacturing effluents. We found that the present state of the law was most unsatisfactory, that the attitude of local authorities towards manufacturers had differed widely, and that many manufacturers were seriously handicapped. Our investigations showed that purification of trade effluents by the local authority is in the great majority of cases practicable; purification by the manufacturer is in some cases difficult, if not impracticable; while purification by the manufacturer would generally be more costly than purification by the local authority.

It also appeared that the local authorities, as well as the manufacturers, were of opinion that there should be laid on the local authority a distinct obligation to receive trade effluents.

335. Our recommendations on this point were as follows :—

"We are, therefore, of opinion that the law should be altered so as to make it the duty of the local "authority to provide such sewers as are necessary to carry trade effluents as well as domestic sewage, and "that the manufacturer should be given the right, subject to the observance of certain safeguards, to dis- "charge trade effluents into the sewers of the local authority if he wishes to do so."

"We do not think it possible to provide, by direct enactment, what these safeguards should be. In "each district it would probably be desirable that the local authority should frame regulations which should "be subject to confirmation by a Central Authority. In most cases however, these regulations could provide "definite standards for the different manufacturers as regards preliminary treatment, and it appears from "the evidence that manufacturers would much prefer to have standards to work to."

"Power to vary the standards or to dispense with them altogether in special cases would be necessary."

"Although the duty of receiving trade effluents should, we think, be imposed on the local authority, "cases may arise in which they should be wholly or partially relieved of it."

"For example, we find that in some instances the effluent discharged from the manufactory is of a com- "posite character, the greater part of which might with advantage be easily dealt with by the manufacturer "if it were kept separate. In such cases we think the manufacturer would generally be willing to adopt "this course, but provision is necessary for those cases in which the local authority and manufacturer could "not agree."

"Further, although we have received no conclusive evidence to show that there are trade effluents which "could not be purified by the local authority, we do not deny the possibility of such cases arising."

"And it is possible that in some cases, as, for example, of a large manufactory being newly established in "a small district, it might be necessary to relieve the authority of the obligation to treat the trade effluent "or to enable them to exact some special contribution from the manufacturer, not only for the cost of treat- "ment, but also towards capital expenditure."

"It is obvious, therefore, that some tribunal will be required for settling differences between the local "authority and the manufacturer, and for relieving the local authority in exceptional cases, either wholly "or partially, of their obligation to provide sewers and disposal works of sufficient capacity for trade effluents "as well as ordinary sewage."

"We are of opinion that generally no special charge should be made on the manufacturer in those cases "in which the regulations as to preliminary treatment are complied with."

"As we have already stated, it is desirable that, wherever practicable, some preliminary treatment "should be carried out by the manufacturer."

"But where the manufacturer is unable to comply with these regulations we consider that the local "authority should be empowered to make a special charge."

"Power should also be granted to make a special charge, even when preliminary treatment is adopted, "where there are exceptional circumstances as regards volume, quality or otherwise."

Settlement of Differences Between Local Authorities and Manufacturers.

336. The chief questions upon which we considered that differences might arise were :—

(1) The refusal of a local authority to allow a particular trade effluent to enter their sewers.

(2) The refusal of a local authority to construct or enlarge sewers for the purpose of a particular manufactory.

(3) The question of varying general regulations as to preliminary treatment by the manufacturer.

(4) The amount of the special charge to be imposed on the manufacturer.

(5) The removal of sludge.

The balance of opinion we found to be strongly in favour of the view that for the settlement of these questions it is necessary to constitute a Central Board possessing adequate technical knowledge, such as the Supreme Rivers Authority which we recommended in our Interim Report.

As regards this matter we reported as follows :—

"We have been struck by the large sums which have been expended in appeals to Courts, but apart "from the question of expense we are strongly of opinion that the ordinary Courts are not suitable for the "determination of these questions, and we venture to think that the judgment of the Master of the Rolls "in the case of Attorney-General v. Whitmore, to which we have already referred, clearly supports this view. "His comment that 'the evidence was very complicated, the expert witnesses who were called not only giving "evidence quite inconsistent with one another, but some of them giving evidence in cross-examination which "was quite inconsistent with what they said in examination in chief,' might apply to many similar cases."

"The scientific questions to be solved would in most instances be capable of actual determination by "a properly-equipped Central Authority, and there can be little doubt that such direct proof would be less "costly than the process of endeavouring to arrive at the truth through the examination of experts witnesses "in a Court of Law."

"Moreover, the matters to be determined include, not only scientific questions on which witnesses may "be expected to differ, but also considerations of an administrative character which should more properly "be dealt with by a Government Department."

"Further, we find that a Central Authority possessing adequate technical knowledge, would command "the confidence of local authorities and manufacturers."

"In our opinion a properly equipped central authority is essential, and we unhesitatingly recommend "the creation of such an authority."

"In the interests of river purification as well as of the trade of the country we consider it is of the highest "importance that the changes in the law which we have recommended should be made. But these changes "would not in our opinion, be of much use apart from the creation of a Central Authority for the determination "of differences between the local authority and the manufacturer."

"If the settlement of these differences be left to the ordinary Courts, differential treatment of manu-"facturers, with all the objections to it, will be certain to continue."

We also recommended that, for the due protection of rivers, River Boards should be formed for other parts of the country, similar to the three which already exist in Lancashire and Yorkshire, and that these boards should be empowered to determine, subject to appeal to the Central Authority, certain of the differences between local authorities and manufacturers.

We further advised that it should be the duty of Rivers Boards to inspect public water supplies and to report to the Central Authority any cases of dangerous pollution of such supplies which they may detect; and that the Central Authority should be empowered, after due inquiry, to order the purveyors of the water to adopt such means as, in the opinion of the Central Authority, were reasonable and necessary for removing or diminishing the danger.

We also recommended that the Central Authority might, with the aid of the Rivers Boards, very properly collect such information as is available throughout the country in regard to waste of water by pumping from mines, and in regard to the abstraction of water from one district, for the supply of another district, to the detriment of the water supply of the district from which the water was taken. We consider that the collection of such information should precede the consideration of the question whether legislative interference in regard to these matters is desirable.

Fourth Report. Cd. 1883 [1904].

337. In our fourth Report, we dealt with the pollution of tidal waters, with special reference to the contamination of shell-fish. We stated that:—

"After carefully considering the whole of the evidence on this point, we are satisfied that a considerable "number of cases of enteric fever and other illness are caused by the consumption of shell-fish which have "been exposed to sewage contamination; but in the present state of knowledge, we do not think it possible "to make an accurate numerical statement, at any rate as regards the whole country."

"There can, however, be no doubt that the evil is sufficiently grave to demand a remedy."

Our main recommendation for dealing with the evil was stated in the following terms:—

"After carefully considering the whole of the evidence, together with the results of our own investiga-"tions and local inquiries, we are strongly of opinion that the only way in which this evil can be effectively "dealt with is by placing tidal waters under the jurisdiction of a competent authority, and conferring on "that authority power to prevent the taking of shell-fish for human consumption from any position in which "they are liable to risk of dangerous contamination, and to enforce restrictions as regards pollution, and "as regards waters, foreshores, pits, ponds, beds and layings in which shell-fish are fattened or stored, as and "when required."

"For this purpose the powers of the authority must be elastic. The case of each river and estuary is a "problem by itself, and it would not be practicable to fix by enactment any standard or standards which would "be generally suitable to the widely different conditions of different cases. Moreover, as the conditions are "shifting in character, it is necessary to provide some permanent machinery by which restrictions can be "varied."

After considering various alternative suggestions as to the Controlling Authority, we stated that:—

"We entirely agree with the view which has been pressed upon us by a large number of witnesses that "Rivers Boards would be the most suitable bodies in whom to vest the local control which we are now dis-"cussing. Their control over inland waters is of a similar character to the control which is required over "tidal waters (estuarial and other), and it is desirable and fitting that their jurisdiction should be extended "to tidal waters for public health purposes. There are indeed no other local bodies possessing the "necessary qualifications, and the only practicable alternative to giving them jurisdiction would seem to "be to place the whole control in the hands of a Central Department."

We recommended therefore :—

"That the necessary power of control over the pollution of tidal waters, and over waters, foreshores, "pits, ponds, beds, and layings where shell-fish are grown, fattened or stored, should be vested in the Rivers "Boards, subject to appeal to a central authority."

In the Report we set forth, in detail, the procedure which the Rivers Boards and Central Authority should follow. We also dealt with the question of the means which should be adopted for avoiding danger from the consumption of foreign shell-fish.

As regards other evils, besides the contamination of shell-fish, which had to be guarded against in the case of discharge of sewage into tidal waters, we made recommendations dealing with these matters.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

(2) PRESENT REPORT.

General Conclusion.

338. It is practicable to purify the sewage of towns to any degree required, either by land treatment or by artificial filters, and there is no essential difference between the two processes. Page 9.

The main questions, therefore, to be considered in the case of a town proposing to adopt a system of sewage purification are, first, what degree of purification is required in the circumstances of that town, and of the river or stream into which its liquid refuse is to be discharged; and, secondly, how the degree of purification required can, in the particular case, be most economically obtained.

Removal of Suspended Matters.

We find that it is generally desirable to remove from the sewage, by a preliminary process, a considerable proportion of the grit and suspended matters, before attempting to purify the sewage on land or filters. Page 18.

Sedimentation Tanks.

339. *Quiescent Sedimentation.*—Two to three hours quiescence is usually sufficient to produce a tank liquor fairly free from suspended solids, but owing to the fact that some sewages contain a larger proportion than others of solids that settle very slowly, no general rule can be laid down as to the necessary period of quiescence. With this form of treatment the deposit in the tanks should be frequently removed. Page 19.

Continuous Flow Sedimentation.—The amount of settlement effected does not depend alone upon the period of flow, but upon a number of other factors. If the tank liquor is to be treated upon filters of fine material, the period of flow should generally be from 10 to 15 hours. The tanks should be cleaned out at least once a week. Page 20

Septic Tanks.

340. All the organic solids present in sewage are not digested by septic tanks, the actual amount of digestion varying with the character of the sewage, the size of the tanks relative to the volume treated, and the frequency of cleansing. With a domestic sewage, and tanks worked at a 24-hours rate, the digestion is about 25 per cent. Page 21.

The liquor issuing from septic tanks is bacteriologically almost as impure as the sewage entering the tanks. Page 22

Domestic sewage which has been passed through a septic tank is not more easily oxidised in its passage through filters than domestic sewage which has been subjected to chemical precipitation or simple sedimentation. Page 22.

Page 25. No definite rules can be laid down as to how long a septic tank should be run without cleaning. In the case of small sewage works (serving populations of say 100 to 10,000 persons), the tanks should generally be allowed to run, without cleaning, so long as the suspended matter in the tank liquor shows no signs of affecting the filters injuriously. For larger works it would generally be advisable to run off small quantities of sludge at short intervals of time.

Page 26. The rate of flow through a septic tank is a matter in which the needs of each place require special consideration, but at few places should the sewage be allowed to take longer than 24 or less than 12 hours to flow through the tank. In no case should less than two tanks be provided, and they should be arranged so that, if necessary, one tank can be used alone.

Page 28. As regards digestion of sludge and quality of tank liquor, a closed tank possesses no advantages over an open tank. There is less risk of nuisance if the tank and the feed channels to the filters are covered in.

Page 29. By passing septic tank liquor through tanks of a size sufficient to hold about one quarter of the day's flow, with the addition of from 2 to 3 grains of lime per gallon to the liquor, the suspended solids in the liquor are materially reduced, a considerably larger quantity of the liquor can be treated per cube yard of filter, and the offensive character of the liquor is largely destroyed.

Chemical Precipitation.

Page 30. 341. In the case of sewages which contain certain trade waste, and strong sewages from water-closet towns, it is generally desirable to subject the sewage to some form of chemical treatment before attempting to oxidise the organic matter contained in it. In most cases careful chemical precipitation materially aids the deposition of the suspended solids, and facilitates subsequent filtration.

Page 30. No general rule can be stated with regard to the capacity of precipitation tanks. With continuous flow, an eight hours rate is usually sufficient to produce a fairly good tank liquor from a domestic sewage of average strength.

Page 30. If sewage is allowed to remain quiescent in the tank, two hours settlement would usually suffice.

Relative Cost of Different Tank Treatments.

Page 43. 342. In the absence of special circumstances favouring a particular plan, it would appear that there is very little difference in annual cost between the various methods of tank treatment when taken in conjunction with the cost of subsequent filtration through percolating filters, assuming that the kind of filter adopted in each case is that which is best adapted to the particular tank treatment provided.

Filters.

Page 52. 343. Within ordinary limits, the depth of a contact bed makes, practically, no difference to its efficiency per cube yard.

Page 53. We think that it would be generally inadvisable to construct contact beds of a greater depth than 6 feet or of a less depth than 2 feet 6 inches.

Page 87. For practical purposes and assuming good distribution, the same purification will be obtained from a given quantity of *coarse* material, whether it is arranged in the form of a deep or of a shallow percolating filter, if the volume of sewage liquor treated per cube yard be the same in each case.

Page 87. With regard to percolating filters of *fine* material, if the liquid to be purified were absolutely free from suspended and colloidal solids, and if thorough aeration could be maintained, the statement just made for filters of coarse material might possibly hold good for filters of fine material also. In practice, however, these conditions can scarcely be maintained with large rates of flow, and we think that the greatest efficiency can be got out of a given quantity of *fine* material by arranging it in the form of a shallow filter rather than of a deep filter. But we are not in a position to make an exact quantitative statement as to the difference in efficiency of the two forms.

344. The amount of sewage which can be purified per cube yard of contact bed or of percolating filter varies—within practical limits—nearly inversely as the strength of the liquor treated. This statement is based on the assumption that the size of the material of which the filter is composed is, in each case, suitable to the character of the liquor treated, and that the material is arranged at the proper depth to secure maximum efficiency. Page 119.

Detailed particulars as to the amounts which can be treated per cube yard of filter are given on page 117.

Taking into account the gradual loss of capacity of contact beds, a cubic yard of material arranged in the form of a percolating filter will generally treat about twice as much tank liquor as a cubic yard of material in a contact bed. Page 119.

In the case of sewage containing substances which have an inhibitory effect upon the activity of micro-organisms, the working power per cube yard of filter of either type may be more nearly equal. This point, however, is not clearly established. Page 119.

Percolating filters are better adapted to variations of flow than contact beds. Page 119.

Effluents from percolating filters are usually much better aerated than effluents from contact beds, and, apart from suspended solids, are of a more uniform character. On emptying a contact bed, the first flush is usually much more impure than the average effluent from the bed. Page 119.

The risk of nuisance from smell is greater with percolating filters than with contact beds. Page 119.

With percolating filters there is apt to be nuisance from flies, especially with filters constructed of coarse filtering material. In the warmer months of the year, such filters swarm with members of the *Psychodidae*, which, though appearing to breed and develop in the filters, may usually be seen in large numbers on the walls of houses, or buildings close to or on the works. Page 119

Treatment of Sewage on Land.

345. There is no essential distinction between effluents from land and effluents from artificially constructed filters. Pages 137 and 142.

Effluents from those soils which are particularly well adapted for the purification of sewage contain only a very small quantity of unoxidised organic matter, and are usually of a higher class than effluents from artificial filters as at present constructed and used. Page 142.

Effluents from soils which are not well adapted for the purification of sewage may often be very impure. Page 142.

Sludging of Mill Dams.

346. In any case in which the Rivers Board should be of opinion that the sludging of a mill dam by turning the accumulated sludge into the stream would give rise to a nuisance, and that it would be financially practicable for the mill owner to adopt some other method of cleansing the dam, the Rivers Board should be empowered, by notice, to direct the mill owner not to turn the sludge into the stream. Page 191.

It should be provided that any mill owner deeming himself aggrieved by such a direction, might, within some fixed period, appeal to the Central Authority. The decision of the Central Authority should be final.

Should any cases arise, in which it is important that the sludge should not be turned into the stream, but in which the Rivers Board are of opinion that the cost of adopting any other method of cleansing the dam would be prohibitive to the millowner, we recommend that the Rivers Board should be empowered to represent the case to the Central Authority, and that the Central Authority should be empowered, after due enquiry, to direct that the sludge shall not be turned into the stream. If the Central

Authority should be satisfied that the cost of adopting some other method of cleansing the dam would be greater than the millowner could be reasonably called upon to bear, they should be empowered to direct that a portion of the cost should be borne by the local authorities whose districts would be benefited.

Effect of Trade Effluents on Sewage Purification.

Page 192. 347. All the trade effluents of which we have had experience interfere with or retard processes of purification to some extent, but we are not aware of any case where the admixture of trade refuse makes it impracticable to purify the sewage upon land or by means of artificial processes, although in certain extreme cases special processes of preliminary treatment may be necessary.

Nuisance from Smell.

Page 195. 348. All sewage works are liable, at times, to give off unpleasant smells ; they should, therefore, be situated away from dwelling houses, wherever this is practicable.

The nuisance is apt to be considerably greater where the sewage contains brewery refuse in any quantity ; but, on the other hand, the presence of some trade effluents, such, *e.g.*, as iron salts or tarry matters, tends to render the process of purification less offensive.

The extent of the risk of nuisance depends, however, not only on the character of the sewage, but also on the method of treatment adopted.

General Observations bearing on Choice of a Method of Sewage Treatment.

Page 202. 349. The selection of a method of sewage disposal should depend primarily on local conditions.

If a sufficient quantity of good land, to which the sewage can gravitate, can be purchased for about £100 an acre, land treatment would usually be the cheapest method to adopt.

In cases where only clay land is available, it would generally be cheaper and more satisfactory to provide artificial filters.

Page 202. 350. Given conditions favourable to each process, there is little difference as regards cost between any of the different forms of tank treatment when these are considered along with the cost of subsequent filtration.

Page 202. Single contact will, generally, only yield a good effluent where the sewage to be treated is weak, and then only after good preliminary treatment. For the purification of partially settled weak sewage, and for well, as also for partially, settled sewage of average strength, if the case is one in which a good effluent is required, double contact is necessary, while if a strong sewage has to be treated, triple contact is necessary, unless the preliminary treatment is exceptionally good.

Page 203. In nearly every case a greater rate of filtration per cube yard can be adopted if the material is arranged in the form of a percolating filter, than if it is used in contact beds. In many cases the rate of filtration through percolating filters may be double or nearly double what it could be with contact beds.

Pages 67 & 203. Where the liquor to be treated contains much suspended matter, it is usually advisable to construct filters, whether contact or percolating, with coarse filtering material. Where the preliminary treatment has effectively removed the greater part of the suspended matter, it is best to use fine material in the filters.

Storm Overflows on Branch Sewers.

Page 209. 351. Storm overflows on branch sewers should be used sparingly, and should usually be set so as not to come into operation until the flow in the branch sewer is several times the maximum normal dry weather flow in the sewer. No general rule can be laid down as to the increase in flow which should occur in the branch sewers before sewage is allowed

to pass away by the overflow untreated. The Rivers Board, or in districts where there is no Rivers Board, the County Council, should have power to require the local authority to alter any storm-overflows which, in their opinion, permit of an excessive amount of unpurified sewage to flow over them. The local authority should have the right to appeal to the Central Authority in any case in which they consider that the requirement of the Rivers Board is unreasonable or impracticable of fulfilment.

The general principle should be to prevent such an amount of unpurified sewage from passing over the overflow as would cause nuisance.

Treatment of Storm Water Sewage at the Works.

352. As a general rule, special stand-by tanks (two or more) should be provided at the works, and kept empty for the purpose of receiving the excess of storm water which cannot properly be passed through the ordinary tanks. As regards the amount which may be properly passed through the ordinary tanks, our experience shows that in storm times the rate of flow through these tanks may usually be increased to about three times the normal dry weather rate without serious disadvantage. Page 210.

The overflow at the works should be made from these special tanks, and should be arranged so that it will not come into operation until the tanks are full.

Special filters which are only used in times of storm are not usually efficient, and should not be provided.

Any extra quantity of sewage arriving at the works in storms, which has to be filtered, should be treated on the ordinary filters, which should be made sufficiently large for the purpose.

As regards the size of the stand-by tanks, the amount of storm water sewage to be filtered, and the arrangements generally for dealing with the storm sewage at the outfall works, the Rivers Board or the County Council in areas in which no Rivers Boards have been established, should have similar power to that which we have proposed in regard to overflows on branch sewers, and the local authority should have a similar right of appeal to the Central Authority.

In most cases it will probably suffice to provide stand-by tanks capable of holding one quarter of the daily dry weather flow, and it will not be necessary to provide for *filtering* more than three times the normal dry weather flow.

Under the arrangements which we recommend no storm sewage arriving at the outfall works would be discharged without some settlement.

Separate Systems of Sewers.

353. In any case in which a local authority wishes to adopt the separate system of drainage for the whole or any part of their district, they should apply to the Central Authority, and that Authority should be empowered to confer on the local authority, by order, such powers as are required. Page 216.

As regards the powers that are required, the provisions which are generally contained in local Acts in respect of this matter seem to be defective. If separate sewers are provided, the local authority should have a clear power to enforce the provision of separate drains, but the local Acts to which our attention has been drawn do not modify the powers of the local authority under the general law in regard to bye laws as to the drainage of houses. Moreover, the powers of the local authority should not necessarily be limited to new streets and new houses.

As a general rule, the expense of altering existing drains should fall on the local authority, and there may be some instances in which it would be equitable that they should bear some portion of the additional cost even in the case of new roads.

The Central Authority should, therefore, have power to include in their Order such provisions for the allocation of the cost as they consider equitable, having regard to the local circumstances.

Standards for Sewage Effluents.

Page 218. 354. Our terms of reference require us to have regard to the "*economical* and efficient" discharge of the duties of local authorities, and in view of the importance of not requiring a local authority to incur any further expenditure on sewage disposal than the circumstances of its area require, we feel strongly that the law should be altered so as to allow local circumstances to be taken into account.

Page 220. We recommend that the Central Authority should determine the nature of the tests which are to be applied for the purpose of standards, and that it should be made the duty of the Rivers Board, or of the County Council in areas not under the jurisdiction of a Rivers Board, to determine, from time to time, subject to appeal to the Central Authority, what standards should be adopted.

In the first instance it would be convenient that the Central Authority should prescribe one standard for all non-tidal waters, in place of the existing statutory provisions. It would then rest with the Rivers Board or County Council to fix, subject to appeal to the Central Authority, a higher or lower standard in any case in which they were of opinion that the circumstances required or justified a different standard.

We further recommend that no action should be allowed to be brought in respect of damage alleged to be due to the discharge of an effluent which complies with the standard fixed for the water into which it is discharged, but that in such cases complaint should be made to the Central Authority, and, if a *prima facie* case is made out, that Authority should ascertain whether the complaint is well founded, and should be empowered to fix a different standard if the circumstances are shown to require it.

In cases where it is alleged that the effluent does not comply with the statutory standard, and that damage is caused by the discharge of such effluent, action should be brought in the ordinary Courts.

But any questions arising as to whether the effluent complies with the statutory standard, or as to whether the damage has been caused by the discharge of the effluent in respect of which complaint is made, should be referred by the Court to the Central Authority for determination. The costs of such determination should be borne by the parties to the action in such proportions as the Court may determine.

Power should be conferred on the Central Authority to suspend, from time to time, the operation of any standard, to allow time for the construction of works, or for any other reason which, in their opinion, justified such suspension.

Tests for Sewage Effluents in Relation to Standards.

Page 222. 355. According to our present knowledge, an effluent can best be judged by ascertaining, first, the amount of suspended solids which it contains, and, second, the rate at which the effluent, after the removal of the suspended solids, takes up oxygen from water.

In applying this test it is important that the suspended solids should be removed, and estimated separately.

For the guidance of local authorities we may provisionally state that an effluent would generally be satisfactory if it complied with the following conditions:—

(1) That it should not contain more than 3 parts per 100,000 of suspended matter; and

(2) That, after being filtered through filter paper, it should not absorb more than:

(*a*) 0·5 part by weight per 100,000 of dissolved or atmospheric oxygen in 24 hours.

(*b*) 1·0 part by weight per 100,000 of dissolved or atmospheric oxygen in 48 hours; or

(*c*) 1·5 parts by weight per 100,000 of dissolved or atmospheric oxygen in 5 days.

The Central Authority.

356. To secure the economical and efficient discharge of the duties of local authorities, and others, in regard to pollution, and adequately to protect the public health and the amenities of rivers, the statutory provisions in regard to these matters must be of an elastic character.

The conditions of different cases vary to such an extent that the necessary control cannot, in our opinion, be provided by any direct enactment which could be enforced by the ordinary Courts.

Throughout our Reports, this fact has been fully recognised, and we have proposed, in regard to many matters, that ultimate control should be vested in an adequately equipped Central Administrative Authority, and that, as far as practicable, the local Rivers Board should, in accordance with regulations framed by the Central Department, act as a first tribunal.

Among the more important questions which have to be dealt with under the new conditions of administration which we are contemplating, are the following :—

(i.) Disputes between local authorities and manufacturers as to the terms and conditions on which trade effluents shall be admitted into sewers ;

(ii.) The control of shell-fish layings so as to prevent the taking of shell-fish for human consumption from positions in which they are liable to risk of dangerous contamination.

(iii.) The protection of water supplies from pollution.

(iv.) The collection of information as to the water supplies available in various parts of the country.

(v.) The collection of information as to the need of water in various parts of the country.

(vi.) The settlement of standards for different reaches of water.

(vii.) Conferring powers on local authorities, in suitable cases, to provide separate systems of sewers for surface water and to enforce the provision of separate drains.

(viii.) The settlement of questions as to the extra amount of sewage which a local authority should be required to treat during storms.

There are also numerous questions in regard to the purification of polluting liquids which, in the interests of the public, have still to be worked out, and it is essential that the Central Authority should be properly equipped for undertaking such special investigations as they may from time to time find necessary, and for collecting and collating the work done by others.

Since the date of our appointment considerable developments have taken place in regard to the disposal of sewage, and there is every reason to think that further changes will occur in the future.

Unless the Central Department keep in close touch with all such changes, and from time to time report on them, it is not possible for local authorities throughout the country fully to utilise the results of valuable work which is being done at many places, and hence, to perform their duties in the most economical as well as efficient manner.

The Position of our Inquiry.

357. In this Report we have dealt with the main question of what methods of sewage disposal may properly be adopted by local authorities. The remainder of our work will be chiefly concerned with the disposal of trade effluents when not mixed with sewage.

We have already investigated the disposal of distillery effluents, and shall issue a separate Report on this subject very shortly.

Concurrently with our investigation of the methods available for disposing of other trade effluents we shall continue our observations on the effect of discharging effluents of known composition into streams, with a view to reporting more fully on the question of standards and tests.

Page 188. We are continuing, for another season, the experiments on the manurial value of sewage sludge, and are also making some observations on a few other points.

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WILLIAM RAMSAY,
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T. J. STAFFORD,
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